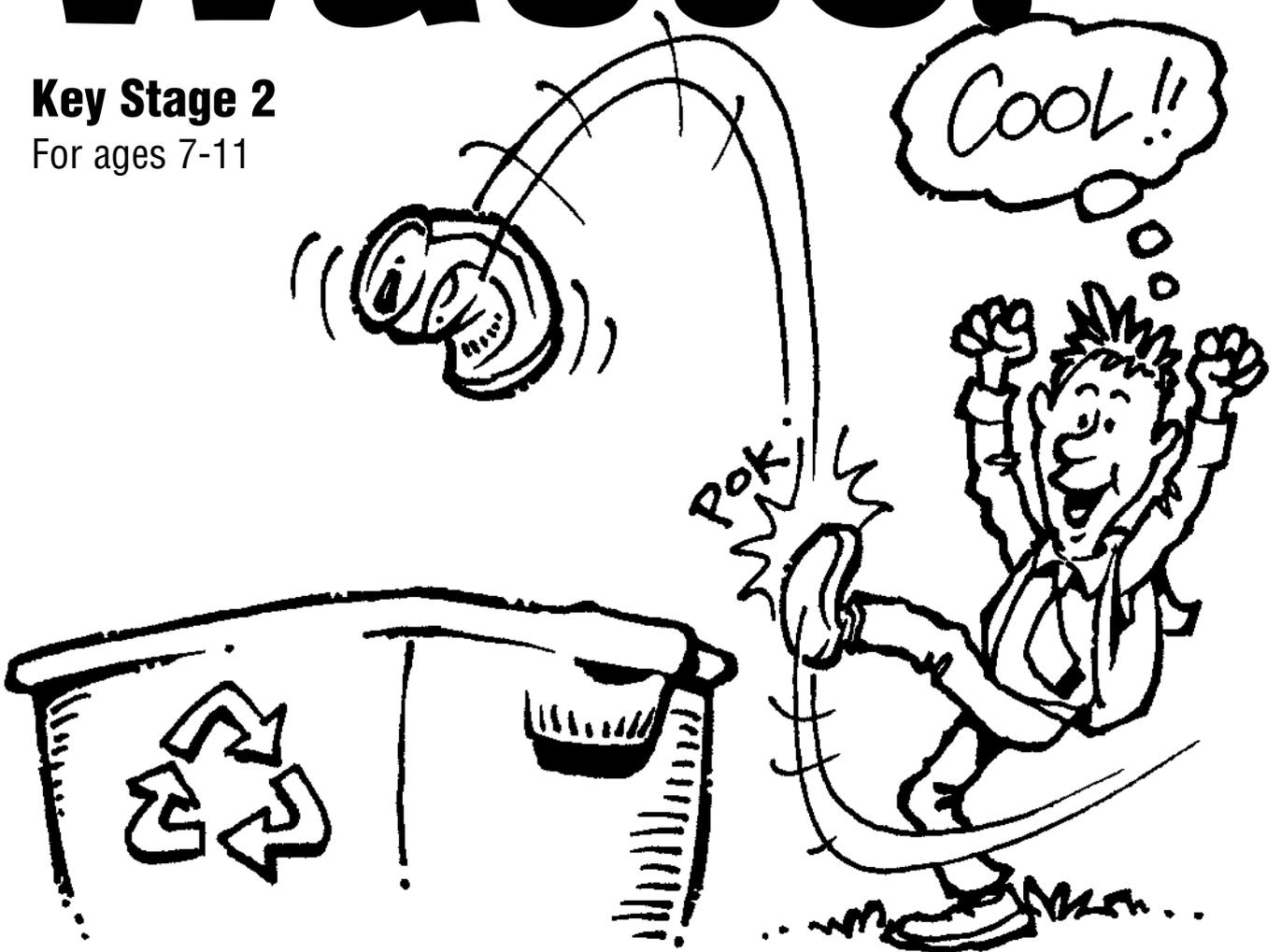


**SLOUGH SCHOOLS**

# Working out Waste!

**Key Stage 2**

For ages 7-11



[www.slough.gov.uk](http://www.slough.gov.uk)  
**Slough**  
Borough Council

**GROUNDWORK**  
THAMES VALLEY

THE NORLANDS  
Foundation

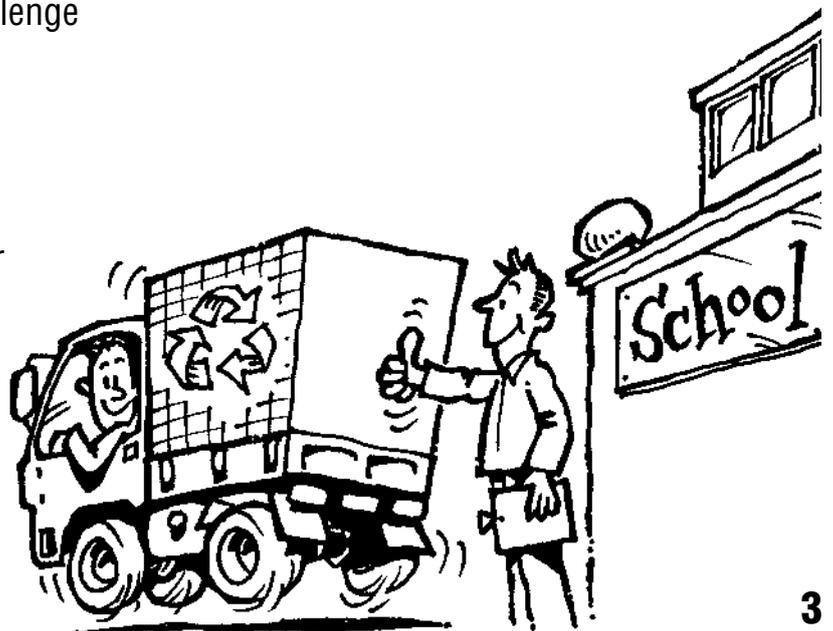
THE ERNEST COOK TRUST  
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FOUNDED IN 1952





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## Introduction

# Using the Pack

This pack has been produced to educate children in Slough about waste and help them to understand the importance of reducing, re-using and recycling rubbish.

Slough has increased its recycling performance over the last few years. However, in order to continue to improve, it is imperative that everyone understands the scale of the waste problem and the part we have to play as individuals and within our community.

Many schools in Slough are now recycling paper and card, and some are also having considerable success composting fruit and garden waste.

We hope this pack will provide advice and ideas for teachers wishing to start or extend a recycling scheme in school, as well as giving plenty of lesson plans and activities to bring waste and recycling to life in the curriculum.

The activities within this pack have been designed to be used as a half term scheme of work but can also be used individually.

The pack contains 5 chapters providing teaching notes and activity sheets on each topic followed by additional information and a few useful resources such as a glossary and web links.

The activities are arranged in a logical, progressive sequence starting with a fun assessment of how much your children already know about waste and recycling. Where appropriate we have provided answers to work sheets.

## Waste and the National Curriculum

All the activities in this pack relate closely to the National Curriculum and the 2003 DfES, Sustainable Development Action Plan. This plan sets out four objectives, the first of which is that “All learners will develop the skills, knowledge and values to be active citizens in creating a more sustainable society.”

In geography for example children should be taught to “have a knowledge and understanding of environmental change and sustainable development” and “should be able to identify and explain different views that people, including themselves, hold about topical geographical issues”. In science pupils should be taught “ways in which living things and the environment need protection”.

Waste also provides cross-curricular possibilities over a range of subjects including Mathematics, History, Design and technology, PSHE and Citizenship

For an overview as to how each of the 17 activities in Rethink Rubbish fit into the curriculum see the “Activity Sheets and the National Curriculum” summary table at the beginning of this pack.



# Key Waste Messages

When developing your schemes of work with this pack these are the concepts that need to be emphasised:

## 1. Waste Not, Want Not

The UK produces more than 450 million tonnes of waste every year. This rate of rubbish generation would fill the Albert Hall in London in less than 2 hours. In order to save us all money in rising landfill costs and to protect our environment's limited resources, we all need to work together to reduce this.

Slough Borough Council needs to meet increasingly challenging waste reduction targets. To achieve these, everyone needs to understand the scale of the waste problem and what we can do about it at home and at school.



## 2. Footprints

This is the concept that people require a certain amount of space ("footprint") to supply them with the resources they need to maintain their standard of living and process their waste. People who enjoy a high standard of living have the biggest "footprint" (impact on the earth) because they consume the most resources and generate the most waste.

For everyone in the world to enjoy the high standard of living we have in Europe we would need the resources of more than 3 planet earths. The fewer resources we consume and the less waste we generate, the smaller our footprint becomes.

## 3. Reduce, Re-use, Recycle

We can decrease the size of our footprint by using the 3R's of the waste hierarchy:

- Reduce the production of waste in the first place by becoming smart shoppers. Look for items that have the least packaging and re-use a plastic bag to carry them home.
- Re-use or repair if possible.
- Recycle if the item is beyond repair or not suitable for re-use. Separate your waste for recycling so the materials can be reprocessed into a new product.

## 4. One man's rubbish is another man's resource.

Plastic bottles, paper, glass, cardboard, drinks cans and food tins can all be recycled. Aluminium cans once empty are useless to the consumer but a very valuable raw material for all sorts of different products.

## 5. Sustainable Development

Sustainable Development means meeting all our needs, without destroying the planet for future generations. We need to be responsible about what we consume so that future generations can experience a quality of life as good as, if not better than, the life we enjoy now – not blighted by our environmental destruction.

# Waste and Recycling Images

There is nothing more likely to bring the issue of waste to life than the sight of a landfill rapidly filling with our rubbish. Children can relate to the individual items and products they see being disposed of on site and can appreciate the contribution that these items make to the vast scale of the problem.

As it is increasingly difficult to take children to visit such facilities pictures must be used instead. Consider using the excellent image library on the recyclenowpartners website to bring the activities in this pack to life and for assemblies / displays.

The library is extremely easy to use and contains hundreds of free, high quality images linked to waste and recycling. Images range from pictures of cans, composters, and christmas cards, to images of landfill sites, recycling facilities and families using reusable bags at the supermarket.



Visit the website to browse the library

To download images, you have to register by giving your name and email address in the first instance (this first registration may take a day or two to process). The next time you visit you can sign in immediately, add images to your lightbox and download as necessary. Images are saved by topic.

New topics are added weekly and include:

**In the Supermarket**

**At the Recycling Bank**

**Compost Bin**

**Energy from Waste**

**Materials Recovery Facility**

**Landfill Site**

**Recycling Collection**

**In the Office**

**In the Garden**

**Charity Shops**

**Household Materials**

**Seasonal Materials**

**Lunch boxes**

[http://www.recyclenowpartners.org.uk/photo\\_library.html](http://www.recyclenowpartners.org.uk/photo_library.html)

## Introduction

# Recycling in your School

More and more schools are starting to look at their impact on the environment. Many are choosing to recycle, not only because it gives children a strong environmental message, but also because it can save money on waste disposal costs.

Many primary schools already recycle paper, printer cartridges and cardboard. Some schools are now even composting fruit and vegetable waste from infant snacks and garden waste from the school grounds.

### Helping Slough Schools Recycle

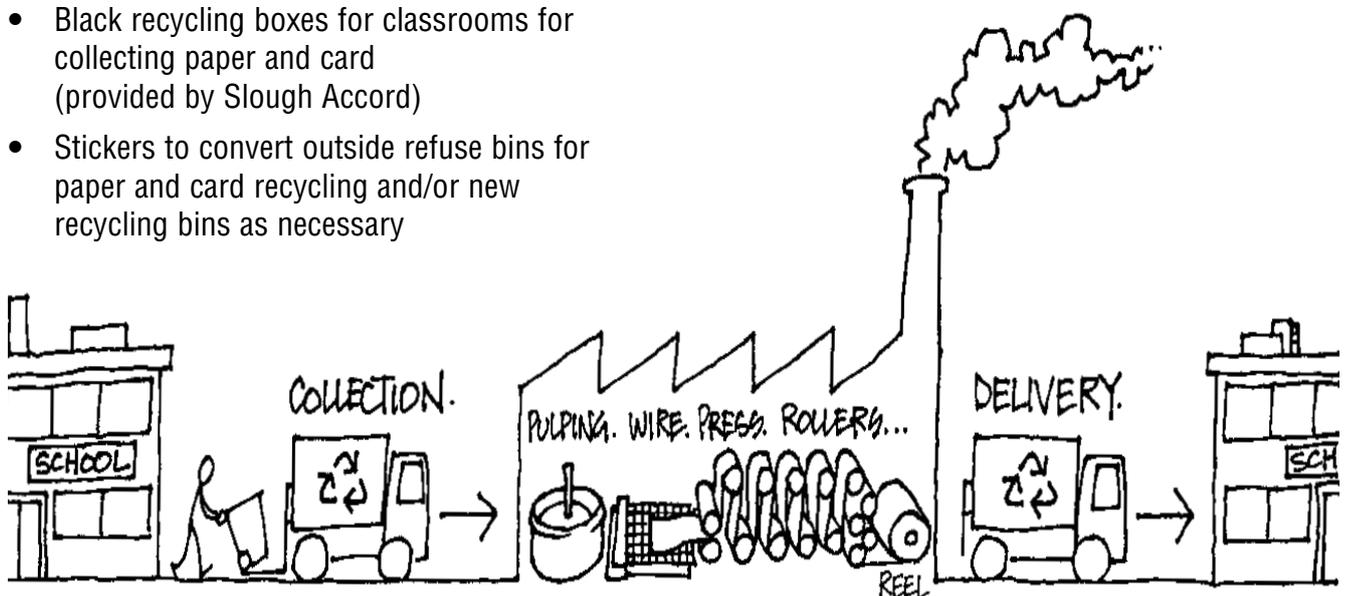
Slough Borough Council would like to support all schools that are starting to recycle and teach their children about waste.

Slough Borough Council can provide free of charge:

- An introductory assembly about waste and recycling (dependant on officer availability)
- Black recycling boxes for classrooms for collecting paper and card (provided by Slough Accord)
- Stickers to convert outside refuse bins for paper and card recycling and/or new recycling bins as necessary

- Information for children to take home for their parents about the kerbside collection scheme in Slough
- To loan - Key Stage 1 Literacy resource box called 'Might be Useful' includes a big book and a group set of 8 copies, worksheets and lesson plans.
- To loan - Key Stage 2 Literacy Resource box called 'Scrapman' includes a big book and a class set of 30 copies, worksheets, lesson plans and large posters of landfill and machinery.
- Dustbin Pack CD Rom (produced by Wastewatch) for Key stage 2

For information about any of these items please contact the Community Recycling Officer (contact details in Chapter 5).



### Introduction

#### Is your school recycling Paper and card?

Recycling paper and card is an excellent active citizenship project. It not only creates a more sustainable environment in school, but also helps to create an ethos where pupils see recycling and waste reduction as part of their every day lives. Recycling also complements work you may be doing towards the Healthy Schools or Ecoschools Award Schemes.

As listed on page 7, Slough Accord, the council's waste contractor, may be able to provide your school with all the facilities that you need to get started.

To launch a successful project in school you will need a designated member of staff or co-ordinator to ensure that all teaching staff, cleaning staff, caretakers and pupils are aware of the recycling scheme.

Place the black recycle boxes in class rooms, staff rooms, the library, offices and especially close to the photocopier. Do not place paper recycle bins in common areas such as lunch rooms, as this can encourage the bins to be used as litter bins.

Your recycling bins can be used for all paper and card including

- scrap paper
- paper towels
- cardboard, newspaper
- exercise books
- cardboard boxes (flattened)
- envelopes (including window envelopes)
- magazines

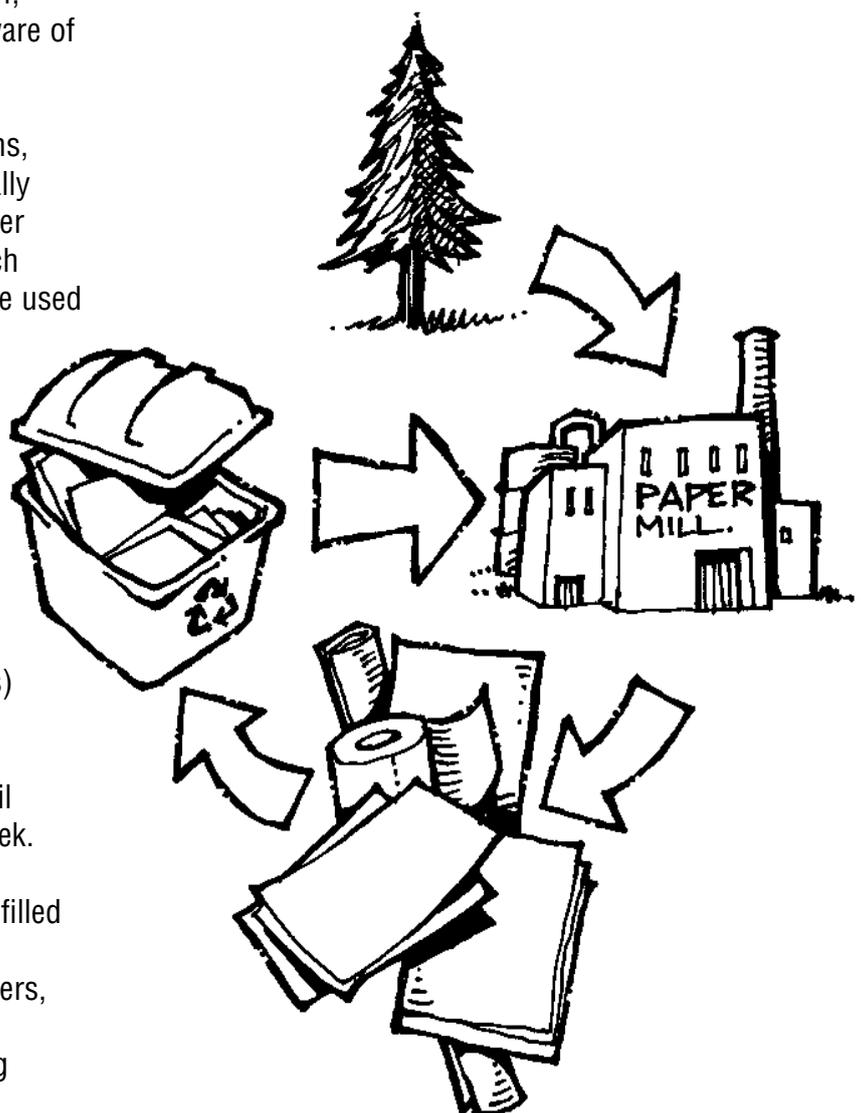
Recycling is usually collected by the council waste contractor Slough Accord once a week.

It is important that the recycling boxes are filled only with the correct materials.

The wrong materials (such as sweet wrappers, apple cores, juice cartons) are deemed "contamination" and could lead to recycling being lost.

Put up signs and notices, and announce the start of your recycling scheme in assembly. Remind teachers, children, support staff, cleaners and caretakers at every opportunity, so that everyone knows what can be put in the recycle bin.

To arrange delivery of boxes or bins or for information on composters please contact the Community Recycling Officer. To enquire about collections days for existing schemes contact Slough Accord directly (contact details in Chapter 5).



### Introduction

# Recycling in your community

Slough households create over 60,000 tonnes of rubbish every year. That's the same weight as 7500 double-decker buses. It costs us all over £2.5 million annually to dispose of this rubbish – this cost is reduced if we recycle.

In 2004/05, Slough residents helped the council to recycle 16% of rubbish. In 2005/06 we recycled 19% of our rubbish. We will need everyone's help to recycle even more in the coming years.

There are several ways to recycle in Slough:

#### **Black Box Doorstep Recycling Collection**

Each Slough household can have as many black recycling boxes as they need for:

- **Paper and Card**
- **Mixed Glass Bottles and Jars**
- **Metal food and drink cans**

The recycling boxes are emptied on the same day as normal refuse collection.

#### **Flats and Apartments**

Most flats and apartments now have communal recycling bins – one for paper and card and one for mixed glass. It is very important that people living in flats separate their waste properly as the recycling can easily be contaminated with the wrong materials.

#### **Mini Recycling Centres**

There are over 25 mini-recycling centres around the borough. These are in car parks, leisure centres and supermarkets.

You can recycle many materials at the mini-recycling centres including paper, card, glass, and cans. Importantly, they are also the place to recycle plastic bottles, textiles and shoes.

#### **Greenwaste Recycling**

The council also collects resident's garden waste for recycling free of charge. Many people are not aware that organic waste produces powerful global warming gases in landfill – it is important that it does not go in the normal bin. The garden waste collected is composted at a big facility outside Reading.

#### **Chalvey Waste and Recycling Centre**

Many of the waste materials residents now take to Chalvey Waste and Recycling Centre are recycled including:

- **Textiles**
- **Books**
- **Greenwaste**
- **Wood**
- **Batteries**
- **Sheet metal**
- **Paper and card**
- **Cans**
- **Glass**
- **Fridges and freezers**
- **Car oil**
- **Batteries**
- **Gas cylinders**
- **Paint tins**
- **Spent aerosol cans**



All our recycling goes to the Materials Recovery Facility (MRF) at Colnbrook. At the MRF our mixed recycling is sorted and baled into different material types. Powerful electromagnets separate the steel, a trommel (like an industrial washing machine) separates the paper and card, and employees sort the different types of plastic.

#### **What happens to all our recycling?**

Our recycling in Slough is made into a variety of different items. Our cans are used to make new cans. Our paper and card are made into corrugated cardboard boxes. Plastic milk bottles are made into plastic cabling, plastic drink bottles are used as filling materials and fleeces. And all our glass is used instead of aggregate for laying roads.

# Community Clean ups

Schools are legally responsible for keeping their sites litter free. In fact all schools should have a specific policy for dealing with litter. More information can be found at [www.defra.gov.uk/environment/localenv/litter/code/index.htm](http://www.defra.gov.uk/environment/localenv/litter/code/index.htm)

Beyond legal and everyday requirements, a clean-up day can be a great way to raise the profile of your environmental activities and involve members of the local community and parents.

**Let people know** when and where your clean up is and tell everyone about your activities in the press. Slough Borough Council hold an official “spring clean” around March in which they encourage schools and community groups to take part. Let them know what you are doing and see if they can provide you with help and advice. You can contact the council’s press department on 01753 552288

**Borrow a clean-up pack** from the environmental services section at the council.

This will include

- litter pickers
- gloves
- and a sharps box.

If you would like to buy your own, a picker will cost about £12 and are available from The Helping Hand Company on 01531 635678

**Dispose of It:** If you are only collecting small amounts of rubbish this can go out with your normal waste. If you expect to find larger items you will need to arrange collection in advance. Remember to think about recycling too; if you expect to be collecting materials that can be recycled make sure you have a few bags to separate these as you collect.

**Survey It:** Why not make your litter pick part of a litter survey. Using a map of the school grounds, children can design their own symbols to map the types and amounts of litter found and to indicate litter hotspots!

### Health and safety

- Always carry out your own risk assessment before planning an event
- It is important to ensure that no-one comes into contact with the litter collected. Wear gloves and use pickers at all times.
- Always have a look at the area first and decide if it is safe to have a clean-up as part of your risk assessment.
- In particular glass, sharp edges of cans, needles and dog faeces should be avoided.
- Remember sharps should be disposed of in a sharps box and any glass should also be put into a solid box to avoid injuries when disposing of bin liners.
- Make sure everyone washes hands after finishing even if gloves have been worn.



### Introduction

# Shop Smart Buy Recycled!

Everything we buy has an effect on our environment:

- Materials and energy are used to manufacture the products
- Materials and energy are used to package the products.
- Energy is used to transport the products to the shops.
- We use even more energy getting to the shops.

If we all bought fewer new items and re-used or recycled as much as possible, we would use less energy and fewer raw materials and this would really help the environment.

If everyone does something about reducing waste this adds up to a lot of action. This is consumer power or Shoppers' Power if you like.

People make choices when they shop. You can choose to shop smart in a number of ways. Look for things that have less packaging, that have been recycled and take a bag with you so you don't have to collect another plastic bag.

Some people think that recycled products are of a lower quality or more expensive than their "new" equivalents. This just isn't true and many people are surprised at the range and quality of recycled products they can buy. In fact, for almost every new product you might be able to think of, someone will be selling a recycled alternative.

Make sure you look out for the "Buy Recycled" logo. Your recycled product might be made from a small percentage of recycled material or be 100% recycled. The higher the proportion the better, but remember - every little counts.

Use the UK's Directory of Recycled Products [www.recycledproducts.org.uk](http://www.recycledproducts.org.uk) to find recycled items for our school with your pupils.





# Introducing Waste

## Activities and Lesson Plans

This chapter introduces the concept of waste to children and examines some of the main vocabulary surrounding the topic.

**Activity 1:** Waste Words  
Teachers Notes  
Activity Sheet 1a  
Activity Sheet 1b  
Activity Sheet 1c

**Activity 2:** What's in the bin?  
Teachers Notes  
Activity Sheet 2a

**Activity 3:** Your Average Bin  
Teachers Notes  
Activity 3a  
Activity 3b

**Activity 4:** Waste – When I was a child  
Teachers Notes  
Activity 4a



# Waste Words



**Aim:** To increase waste vocabulary & knowledge

**National Curriculum Links:** English

**You will need:**

Images of a landfill site from the Recycle Now Partners website, [www.recyclenowpartners.org.uk/photolibrary](http://www.recyclenowpartners.org.uk/photolibrary). (See Chapter 1 “Waste and Recycling Images” for details).

Class copies of the activity sheet for your age group. (If you have mixed ability you may need copies of both).

Activity 1a for years 3 and 4, Activity 1b is intended for years 5 and 6. The extension activity (1c) can be used by all ages.

Enough dictionaries for one between two.

**Task:**

Discuss what the children think happens to all their rubbish. Show the class some images of landfill sites. Discuss what is happening in each of the pictures. Show the class the activity sheets and read through all the words.

Activity 1a: Ask children to match correct words to their definitions.

Activity 1b: Ask the children to find the words in their dictionary and write the meanings of each.

**Extension Activity:** Once the children have correctly found the meanings of the words ask them to look at the pictures in Activity 1c and copy the words correctly below each picture.

**For your Information**

A Landfill site is an enormous hole in the ground often an old quarry. The rubbish comes onto the site in large 40 tonne lorries and is weighed and tipped out. Some of the machinery moves the rubbish to spread it out and some compacts the waste. Each day the waste is covered with a layer of clay to try to stop it blowing around and also to keep rats and other vermin out.

Large pipes are laid within the landfill site to collect gas, mainly methane, which develops when rubbish decomposes.

The methane collected is usually burnt, “flared off”. On some sites the amount of methane is so large it is taken off to generate electricity.

The landfill site is lined to prevent toxic leachate (water that has dissolved chemicals from the rubbish) from getting into the ground water.

The sites have to be monitored for at least 50 years after they are full.

**Answers**

Activity Sheets 1a and 1b

Waste Words

- REDUCE**            Make less rubbish (e.g. buy things with less packaging)
- RE-USE**            Using your rubbish again (e.g. washing your plastic water bottle and filling it up again).
- RECYCLE**           Rubbish being manufactured into new products (e.g. old cans are melted down to make new cans)
- WASTE**              Stuff you don't want any more.
- LITTER**              Small items of waste that are thrown on the ground
- FLYTIPPING**       Large amounts of waste that are dumped illegally
- INCINERATION**     Burning rubbish in a special furnace.
- LANDFILL**           Large hole used for burying rubbish
- COMPOST**           Heap of old plants and grass cuttings that rot down to make a nutrient-rich soil.

Name:

Date:

Try to match these words to the correct meanings on the right.

**REDUCE**

**RE-USE**

**RECYCLE**

**WASTE**

**LITTER**

**FLYTIPPING**

**INCINERATION**

**LANDFILL**

**COMPOST**

Large amounts of waste that are dumped illegally

Stuff you don't want any more

Small items of waste that are thrown on the ground

Heap of old plants and grass cuttings that rots down to make new soil.

Rubbish being made into new products (e.g. old cans are melted down to make new cans)

Large hole used for burying rubbish

Burning rubbish in a special furnace.

Make less rubbish ( e.g. buy things with less packaging)

Using you rubbish again (e.g. washing your plastic bottle and filling it up again)



# Waste Words

## Activity 1b

Name: \_\_\_\_\_

Date: \_\_\_\_\_



Use a dictionary to find the meanings of these waste words:

<b>REDUCE</b>	   
<b>RE-USE</b>	   
<b>RECYCLE</b>	   
<b>WASTE</b>	   
<b>LITTER</b>	   
<b>FLYTIPPING</b>	   
<b>INCINERATION</b>	   
<b>LANDFILL</b>	   
<b>COMPOST</b>	   

# Waste Words

## Activity 1c

Name: \_\_\_\_\_

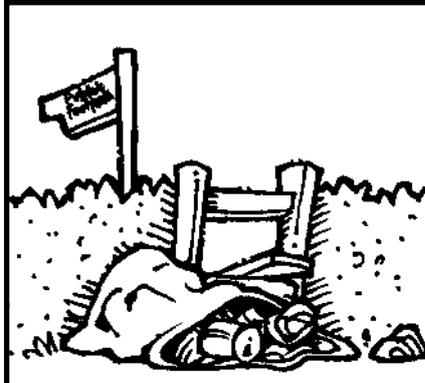
Date: \_\_\_\_\_

Find the picture to match the words in the list. Copy the correct word in the spaces.  
The first one is done for you.

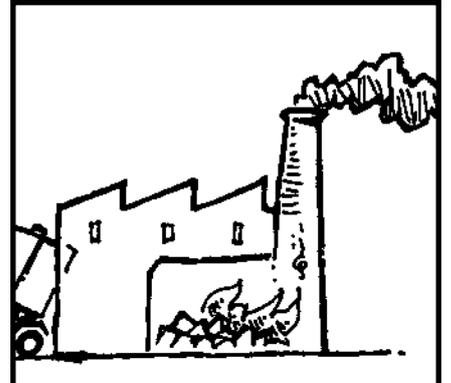
**Waste, Recycle, Litter, Reduce, Flytipping, Compost, Landfill, Incinerate and Re-use**



1. Waste



2.



3.



4.



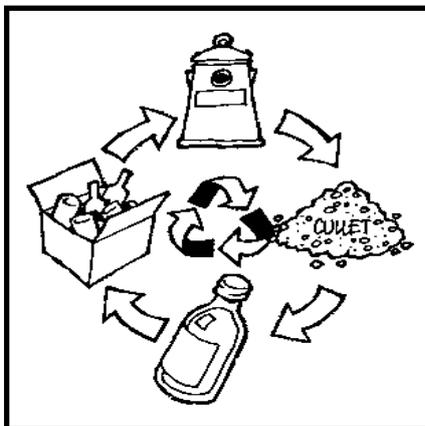
5.



6.



7.



8.



9.

# What's in the Bin?

**Aim:** To increase the awareness of different types of household waste and the importance of reducing waste.

**National Curriculum Links:**  
Maths, English Science

**Age:** Year 3-6

**You will need:**

Rubbish (clean and made safe) brought from your home. Keep organic waste separate in a clear plastic bag.

Newspaper or plastic to cover tables

Scales

Plastic gloves

Hula-hoops or Venn circles

Class copies of activity sheets

**Task**

Weigh all the rubbish as a whole class and record the total weight.

Sort the rubbish into piles by type:

Paper and card    Metal    Glass

Plastic    Food waste    Other materials.

Weigh each pile.

Children decide if each type of rubbish can be recycled and where it could go (e.g. kerbside box, recycling banks, composted or just thrown away).

Discuss ways of reducing the amount of waste that gets thrown away. You might include reducing the amount of waste we bring home e.g. choosing products with less packaging, taking a plastic bag with you to bring shopping home and even having milk delivered by a milk man.

**NB:** Not all plastics can be recycled.

In many Boroughs only plastic bottles can be recycled. Ask children to suggest alternatives to products purchased in plastic to reduce plastic waste e.g. using paper bags or buying loose fruit rather than on trays.

**Extension**

Draw a histogram to show the proportion of waste by weight in each category.

**For Your Information**

A MRF is a Material Recovery Facility and is used to process all of the kerbside recyclables collected in any given area. The lorries come onto the site and are weighed. The paper is then tipped out onto a pile and the lorry is weighed again. The tins and plastic are then tipped onto a conveyor belt for sorting.

The conveyor belt goes up to a large magnet where the steel cans are removed.

The plastic is sorted by hand into its different types. The aluminium drops off the other end into another big bin.

Each type of resource is then squashed by a large baling machine and tied with wire to await transport to the factory to be made into something new.



# Whats in the Bin?

## Activity 2a

Name:

Date:

Type of waste	Weight in Grams	Can you recycle this waste?	Where would you put it for recycling?
Paper and card			
Metal			
Food waste			
Plastic			
Glass			
Other			
<b>Total amount of waste</b>			

Use graph paper to record the weights of the different materials you have weighed as a histogram. Remember to label the axis.

Now answer these questions.

1. How much waste is generated in this house every day?

.....  
.....

2. Calculate how much waste is generated in this house in a week.

.....  
.....

3. How much waste is generated in this house in a year?

.....  
.....

**Think about your home.**

**What do you throw away at home?**

**What do you recycle?**



# Your Average Bin

**Aim:** To focus on what we throw away and the need for everyone to reduce waste.

**National Curriculum Links:**

English, Maths and PSHE& Citizenship

**Age:** Year 3-6

**You will need**

Activity sheets 3a and 3b for each pupil

**Task**

Activity Sheet 3a shows the contents of the average bin in the UK.

Over half of all the items currently in the average bin could be either recycled or re-used.

You can see that the majority of the bin is kitchen and garden waste.

There is also a lot of paper and card.

Ask the children to colour the different section of the bin diagram and add labels to show which material each section represents.

Discuss the questions at the bottom of the sheet as a class

**Suggested Answers**

1. Remind the children about home composting or even the council's garden waste collection service.
2. Kitchen and garden waste can be composted. Paper, card, plastic, glass, cans and foil can all easily be recycled. Scrap metal, wood and electrical goods can be recycled at the councils waste and recycling sites, furniture and textiles can be taken to Charity shops.
3. Nappies cannot be recycled.
4. Are children aware of real nappies - You only throw away a small liner and wash the rest.

Activity 3b should be done at home and asks the children to list 6 things in the bin at home.



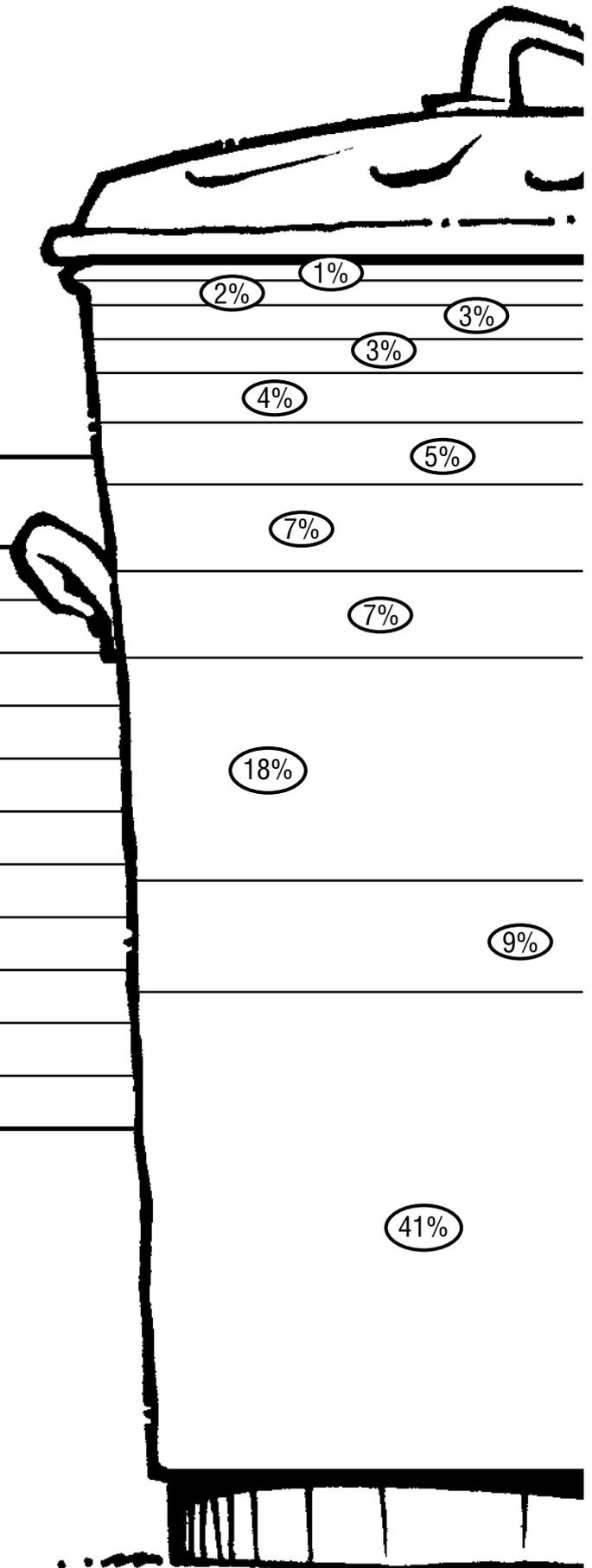
Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Colour and label the bin diagram to show which material each section represents.**

**The % of material in the average UK Household Bin**

41%	Kitchen and garden waste
18%	Paper and card
7%	Plastic
7%	Glass
5%	Scrap metal and electrical goods
4%	Wood
3%	Textiles
3%	Metal cans and foil
2%	Nappies
1%	Furniture
9%	Other
100%	Total



**Discuss:**

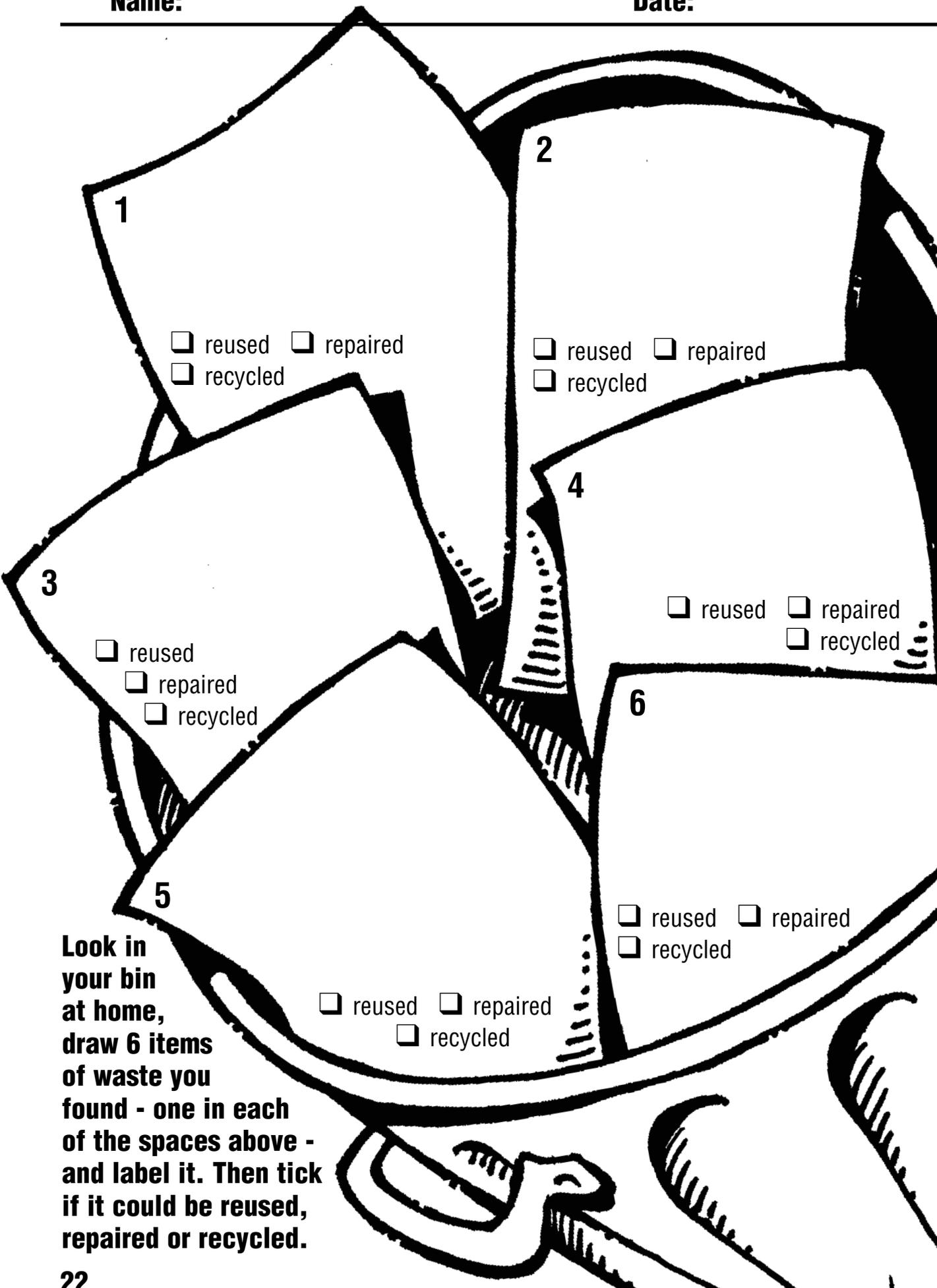
1. What makes up the largest part of the average bin? Can this be recycled in any way? (Think carefully).
2. What other things in the bin can be recycled?
3. Is there anything in the bin that cannot be recycled?
4. Is there anything we can do to reduce or avoid this kind of waste?

# Your Average Bin?

## Activity 3b

Name: \_\_\_\_\_

Date: \_\_\_\_\_



1

reused    repaired  
 recycled

2

reused    repaired  
 recycled

3

reused  
 repaired  
 recycled

4

reused    repaired  
 recycled

5

reused    repaired  
 recycled

6

reused    repaired  
 recycled

**Look in your bin at home, draw 6 items of waste you found - one in each of the spaces above - and label it. Then tick if it could be reused, repaired or recycled.**

# Waste - When I was a child

**Aim:** To make children aware that product packaging, the way we shop and the way we dispose of rubbish has changed in the last 50 years.

**National Curriculum Links:**  
History, English, D&T, PSHE & Citizenship

**Age:** Years 3-6

**You will need:** Pencils and paper, copies of Activity Sheet 4a.

#### Task

We live in a society in which many products are not built to last. Pressure from advertising persuades us to try new products.

It wasn't always like this....

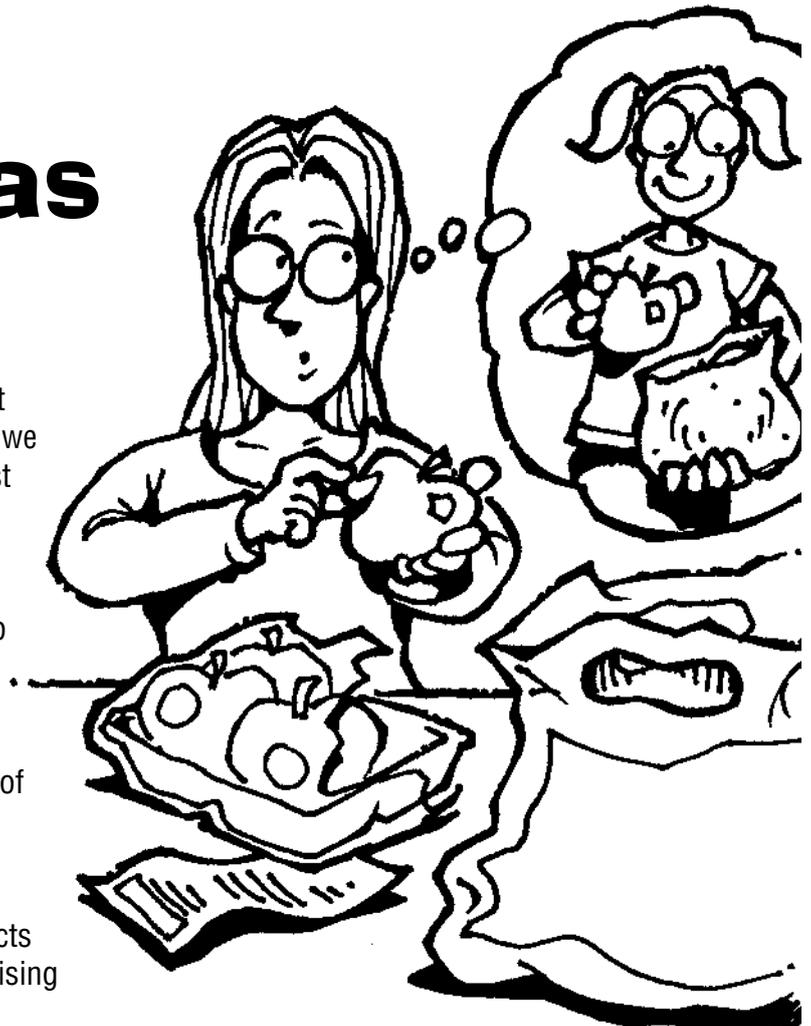
Discuss how things have changed over the last 50 years. The dustbin for example was called this because it was used to empty the dust and ash from the fire. Very few people had central heating and some still cooked on large black stoves that warmed the house. Lemonade and beer came in bottles which when you returned the empty bottle to the shop you got some money back.

It was a vital supplement to your pocket money to return the empties.

The supermarket had not yet developed so you went from the green grocer to the butcher, the hardware store, the newsagents, the chemist and all the other specialist shops in order to do your shopping.

In some places the shops came to you!

The fish man used to come on Friday and the egg man on Tuesday.



Milk was either delivered on a cart from the farm and you took out your jug and bought a quart (2 pints), or in really modern areas it was delivered in bottles by a milkman.

Waste is linked to the things we buy – it will change when packaging on products is changed and when the types and quantities of things we buy changes.

Discuss with the children how they think waste might have changed – did their grandparents use the same products when they were children.

Discuss the questions with the class using the activity sheet provided.

Children should take the sheet home and interview an older member of their family or community. Ask them to think of some questions of their own.

Name:

Date:

**You will need to interview an older member of your family or even a family friend to get the answers to these questions.**

**Try to think of some questions of your own as well.**

1. How were soft drinks like lemonade packaged? What happened to the packaging when the drink was finished?
2. What did people do with food cans after they were empty?
3. What was the main type of waste emptied into dustbins?  
(clue: not many houses had central heating)
4. What happened to vegetable peelings?
5. What was done with leftover food at the end of a meal?
6. Did people get bags with their groceries?
7. Where did people get their milk, vegetables and other groceries?
8. How were they packaged?
9. What did people do with broken things like socks with holes in them, broken radios or shirts with worn out collars?
10. Do you think people create more waste now, or in the past?



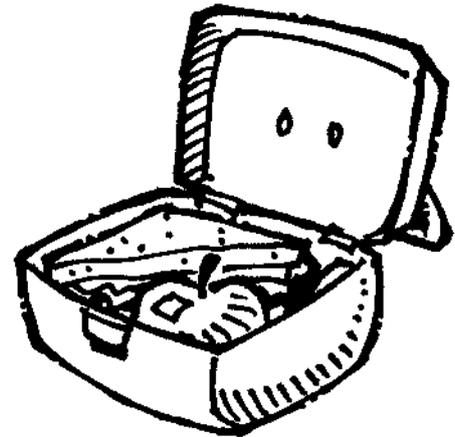
# Reduce, Re-use, Recycle



## Activities and Lesson Plans

- |   |   |
|---|---|
| <p><b>Activity 5:</b> Neutral Waste Lunchbox Challenge<br/>Teachers Notes<br/>Activity Sheet 5a<br/>Activity Sheet 5b</p> <p><b>Activity 6:</b> Rubbish Instruments<br/>Teachers Notes<br/>Activity Sheet 6a</p> <p><b>Activity 7:</b> Charity Shop<br/>Teachers Notes<br/>Information Sheet 7a<br/>Information Sheet 7b<br/>Information Sheet 7c<br/>Activity Sheet 7a</p> | <p><b>Activity 8:</b> Recycling Games<br/>Teachers Notes</p> <p><b>Activity 9:</b> Waste on the Web<br/>Teachers Notes<br/>Activity Sheet 9a</p> <p><b>Activity 10:</b> Glass Lasts Forever!<br/>Teachers Notes<br/>Activity Sheet 10a</p> <p><b>Activity 11:</b> Composting<br/>Teachers Notes<br/>Activity Sheet 11a</p> <p><b>Activity 12:</b> Mini Beasts<br/>Teachers Notes<br/>Activity Sheet 12a</p> |
|---|---|

# Neutral Waste - Lunchbox Challenge



#### Aims:

- Helping the children to make more use of reusable or recyclable packaging.
- Investigation, Interpretation and presentation of results.
- Problem solving followed by discussion and negotiation of solutions.
- Monitoring effectiveness of the solutions.

#### National Curriculum Links:

English, Science, PSHE& Citizenship

#### You will need:

Children who bring in lunch boxes to school.  
Newspaper or plastic sheeting to cover tables.  
Copies of worksheets 5a and 5b.

#### Task

Activity 5a: When the children go to lunch remind them not to throw anything away from their lunch box.

After lunch the children record on the activity sheet what they have left in their lunch box. Children who have school dinners can share with a friend who has a packed lunch.

Discuss as a class what they have left in their lunch boxes. Is there any way the amount of waste could be reduced for example:

- Reduce the number of over packaged products.
- Re-use small margarine containers instead of buying food bags, foil or cling film. Pack your own cakes, biscuits, raisins etc from bulk buys into re-usable containers (saves money too).

- Refill empty drinks bottles with squash.
- Recycle food waste such as apple cores, banana skins etc on a compost heap.
- Recycle cans and plastic and aluminium foil at your nearest recycle bank.

Get the children to think about their waste and multiply it by every class in the school, then think about the waste you could save in a week, a month, a year.

Activity 5b: As a follow up the children design their own 'neutral waste lunch box'. This means they need to think carefully about packaging and try wherever possible to reduce waste by reusing bottles and containers. If food must be wrapped they need to think about using recyclable packaging like paper or foil.

There are some excellent images of low and high waste lunch boxes on the Recycle Now Partners website, (see Chapter 1 – Waste and Recycling Images for details).

NB: Please be aware that drinks cartons such as tetra-pak and juice cartons cannot yet be recycled as they are made of a mixture of materials. Shiny packaging such as 'Capri sun' cartons and biscuit wrappers are not made from metal foil and cannot be recycled. To tell the difference between shiny coated plastic and aluminium foil ask the children to scrunch it up in their hands. Foil stays scrunched up shiny plastic packaging will bounce back.

It is just as important to emphasise to children things that cannot be recycled so they only put the correct materials into the recycle banks.

# How much waste does my lunch create? Activity 5a

Name:

Date:

What I had for lunch today.	What I had left in my lunch box - packaging	Can this be reused, recycled or put in the bin?
e.g. carton of juice	Cardboard covered with foil and plastic	Put it in the bin.

Name:

Date:

# Design your own neutral waste lunch!

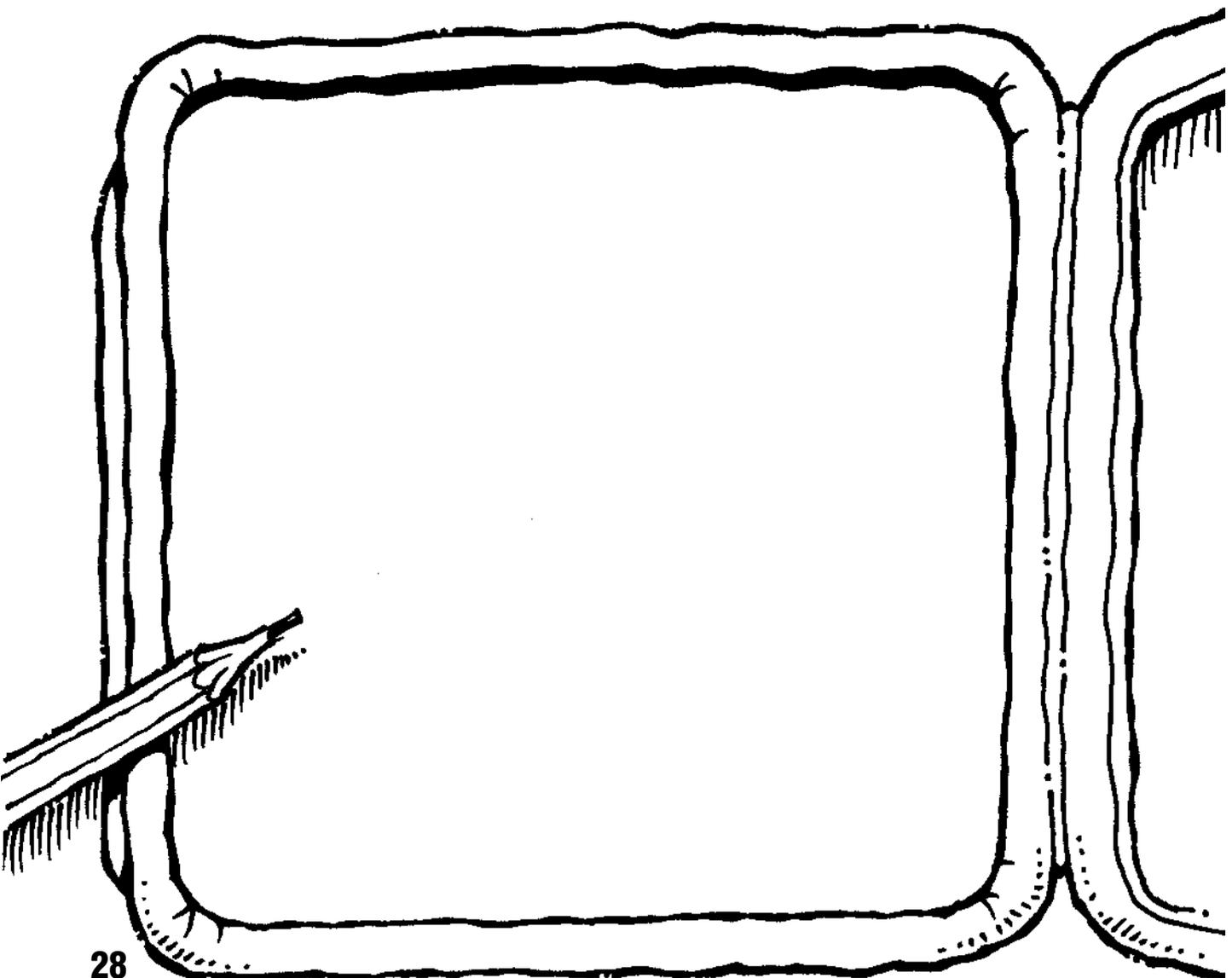
The aim is to reduce the waste that goes into the rubbish bin by thinking about the packaging you use and finding alternatives that can either be re-used or recycled.

Sketch the items you would put in your lunchbox in the space below. Label each item saying what the packaging (if any) is made of and how it can be recycled, reused or composted.

### Negotiation –

**I'd like to reduce the waste in my packed lunch.**

You need to talk to the person who prepares your lunch. Explain you are trying to reduce the amount of rubbish left after you have had lunch. Say what you think can be done and ask for help. Remember to OFFER TO HELP yourself.



# Rubbish Instruments

**Aim:** To inspire pupils to make music.  
To help them to see rubbish as a resource.

**National Curriculum:** Music, English, D&T

**Age:** years 3-6

**You will need:** Empty containers made of plastic and cardboard or biscuit tins.

**Task:** This activity takes place in two stages:

## Stage 1

Ask the children to choose a type of instrument to design – drum, shaker or xylophone.

Children sketch their instrument deciding which items of 'rubbish' they need to construct it and how they might decorate it.

## Stage 2

Using the 'rubbish' the children make their instruments and decorate them.

They work in groups to then compose a song about recycling. The suggestions below will help get them started. Older children might prefer to write their own recycling song or a rap.

### A) Shakers and rattlers

Use an empty clean container and add a handful of materials to produce a sound.

For harsh sounds choose: gravel, nuts, metal bolts, buttons, dried beans or pea seeds & lentils.  
For soft sounds choose: rice, barley, sand, salt, sugar or pencil shavings.

### B) Drums

Simple drums can be made from ice-cream or margarine containers, food tins, biscuit tins or even an old saucepan. A set of kettle drums can be made by attaching cardboard containers of different size to a wooden or cardboard base. Drumsticks could be made from spoons, forks, wooden spoons, rulers or cardboard tubes.

### C) Bottle xylophone

Fill 8 bottles with different amounts of water. The xylophone is tuned by adding or taking out water.

## Examples of Waste and Recycling Songs.

### Litter

Tune: If you're happy and you know it.

If you see a piece of litter pick it up  
(Yell-PICK IT UP!!)

If you see a piece of litter pick it up  
(PICK IT UP!)

You will make the world look better if you pick up  
all the litter.

If you see a piece of litter, pick it up  
(PICK IT UP!!)

### Recycling Song

Tune: Mary Had a Little Lamb

Hear the cans go crunch, crunch crunch, crunch,  
crunch, crunch, crunch, crunch, crunch,  
Hear the cans go crunch, crunch crunch, Recycle  
for our earth.

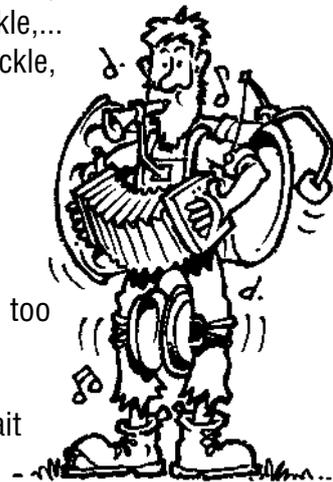
Hear the paper go crinkle, crinkle,  
crinkle...crinkle,crinkle,crinkle,...

Hear the paper go crinkle, crinkle,  
crinkle...Recycle for our earth.

### Recycle

Tune: Twinkle,twinkle

We recycle what we use  
Separate things and you should too  
Glass and Paper plastic and tin  
Go in your recycling bin  
We must start now, we can't wait  
Quick, or it will be too late



### We Recycle

Tune: Frere Jacques

We recycle, we recycle  
Yes we do, yes we do  
Caring for the planet, caring for the planet,  
You should too, you should too.

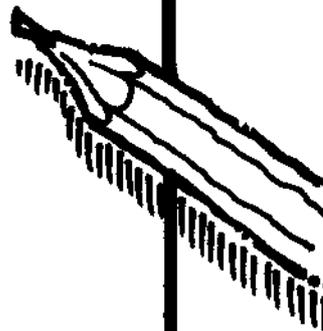
Courtesy of Songs 4 Teachers ©

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Design your musical instrument and list the materials you need to collect.

DESIGN DRAWING:



MATERIALS: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

©

DATE: \_\_\_\_\_

# Charity Shop

**Aim:** To help the children to understand that charity shops are an important resource for us all.

**National Curriculum Links:**  
Geography, English and Maths

**Age:** Years 3-6

**You will need:**

to find a charity shop in your local area and find out what goods it accepts.

You will find the Oxfam Shop finder very helpful go to [www.oxfam.org.uk](http://www.oxfam.org.uk) and follow the links.

Copies of worksheet 7a for every pupil.

Copies of information sheets A, B and C for each group.

Catalogues of new clothes, books, toys and calculators.

Second hand items bought in by children

**Task**

Introduce children to the concept of a charity shop. Charity shops sell items that are donated to them by the public. This not only saves on waste going to landfill, it gives a valuable income to charities, and provides a source of cheap second hand items to the public.

Decide on a charity shop in your local area on which to focus.

- Discuss with the children what the charity shop will and will not accept (use the Oxfam guide if necessary). Emphasise that charity shops can only accept high quality re-usable items as it is expensive for charity shops to dispose of items they cannot sell.
- Ask the children to bring in two items each that they would like to donate to charity (e.g. toys, books, clothes, CD's etc) remembering what the charity shop will and will not accept.

- Pupils work in groups of 5. Ask them to place all their items in the pile on their table. Group members choose items to price up for sale in the charity shop (using Information Sheet 7a - Price Guide to help them). Pupils need to take into account the condition of the item when deciding on a price. If the item is not listed pupils discuss and decide as a class how much they think it might be sold for in a charity shop.
- Pupils also use the catalogues to work out how much they might pay for a similar new item.
- Record both the 'new' price and the 'charity shop' price on the work sheet.
- The children then add up 'new prices' and the "charity shop prices" for their groups' items. Record on the board the total class value of the price of all the items "new", also record on the board the total class value of the 'charity shop' items. How much would the children have saved if they bought all these items in a charity shop?
- Use the 'What your donation could do' Information Sheets 7b and 7c to work out what the money made from your second hand donations could buy for the charity.
- Finally, take your class donations to the charity shop.





### Information Sheet A

This sheet is meant to be a guide to pricing your item. Not all items you want to price will be on this guide. You may need to estimate the price of your item.

Before pricing you need to check your item:  
**Is it clean? Is it damaged? Is it complete?**

Please note charity shops do not sell items which are dirty, damaged or are incomplete – please throw your item away or recycle it if it is unsellable.

### Music, Video and DVDs

Music Video	£2.99
CD Single	99p
CD Album	£1.99
Double Album	£3.99
Cassette tape single or free CD from a newspaper	59p
Cassette tape album	99p
Records	£1.00
Video Tapes	£1.50
DVDs	From £2.00

### Games and Plastic Toys

Jigsaws, games	75p
Small Soft toys	59p
Medium soft toys	99p
Large soft toys	£1.99
Other toys	From 75p -max £5.00
Any other large items (eg Garages, Dolls prams, Barbie or Cindy Houses)	£3.00 – £5.00
Computer games	From £2.50 depending on game

### Books

Readers Digest	20p
Thin paperback	30p
Thick paperback	40p
Thin hardback	50p
Thick hardback	60p
Annuals	From 60p
Bigger books	from £1.00 -max £2.50

### Clothes

Item	Good Quality	Average Quality
Dresses	£5.00	£3.00
Skirts	£4.00	£3.00
Blouses	£2.50	£2.00
Suits	£9.99	£6.00
Jumpers and Cardigans	£4.00	£3.00
Sweatshirts	£5.00	£3.00
Trousers and Jeans	£5.00	£4.00
T- shirts	£2.00	£1.50
Shorts	£2.00	£1.00
Jackets Wool	£8.00	£4.00
Jackets Cotton	£5.00	£3.00
Coats (Wool)	£15.00	£6.00
Nightwear	£3.00	£2.50
Underwear	£2.00	£1.50
Shoes	£4.00	£3.00
Trainers	£2.50	£1.75
Swimwear	£1.50	£1.00
Handbags	£2.00	£1.50
Hats, gloves, scarves	£1.50	£1.00
Belts	£2.00	£1.00
Ties	£1.50	£1.00

### What will Oxfam Accept?

Good quality and Clean: Toys and games, Computer games, Bric-a-brac, Videos, Books, Clothes and textiles, Cassettes, Jewellery, Shoes, Un-used toiletries and Mobile phones.

### What will Oxfam not accept?

Electrical items, any Glass or Breakable Items, any broken or dirty items or any games or puzzles with missing pieces.

## Information Sheet B

Every gift to Oxfam, however large or small, has an impact on poverty. The following examples show what your donation could do.

## Long term development work

**£1** could pay for a textbook for a schoolchild in Mali.

**£2** could buy one hen in Honduras - providing a family with a supply of eggs and a means of earning money.

**£10** could pay to train an 'on-call volunteer' in India to enable them to help their community during the annual floods.

**£18** would enable a refuge for victims of domestic violence in South Africa to provide food and shelter for eight women and their children for 24 hours.

**£27** could buy a desk and chair for a school in Zambia.

**£30** could provide 120 meals in a Community Kitchen in Peru. The kitchens are run by women in an independent federation, which is supported by Oxfam.

**£72** could pay for a treadle pump in Zambia, reducing irrigation time and enabling farmers to increase the size of planting areas.

**£125** could buy a family in Albania a greenhouse enabling them to grow fresh vegetables for a greater part of the year, improving their diet and health.

**£250** could provide a heifer for a woman dairy farmer in Malawi. The milk sold enables women to be independent and send their children to school.

**£300** could buy a water cistern for a family of six in Brazil, enabling them to collect enough rainwater to provide for their drinking and cooking needs throughout the 8-month dry season.

**£333** could pay to train ten community water workers to maintain Oxfam provided water facilities in Kenya.



## Information Sheet C

### Help in Emergencies

<b>83p</b>	could pay for a 2 litre measuring jug for use with Oxfam's feeding kits	<b>£117.54</b>	could pay for an emergency shelter kit containing plastic sheeting, struts, pegs and rope, for a family of eight people
<b>£1</b>	could pay for 10 packets of Oral Rehydration Salts to treat diarrhoea	<b>£181.35</b>	could pay for a distribution tap stand (a metal frame with six taps) for use in a refugee camp. Oxfam tries to ensure that there is a tap stand within 500 metres of where each refugee is living
<b>£1.80</b>	could pay for a fly-trap to protect against the spread of disease	<b>£185</b>	could pay for a tonne of aluminium sulphate for water purification (this is used when the water is very dirty – it causes the sediments to drop out, and the water can then be chlorinated)
<b>£2.34</b>	could pay for an Oxfam bucket – easily cleaned and with a tap for increased protection against contamination.	<b>£326</b>	could pay for a feeding kit – feeding 500 people.
<b>£3.62</b>	could pay for 40 bars of all-purpose soap – to be used for washing and laundry.	<b>£482</b>	could pay for a latrine digging kit.
<b>£25.00</b>	could pay for a latrine tray. When a flood, or earthquake destroys a community's toilets, the latrine trays are a quick way to prevent the spread of disease. They can be installed within a couple of hours.	<b>£1086</b>	could pay for a water testing kit.
<b>£59.49</b>	could pay for a 50 metre length of water distribution pipe.	<b>£1236</b>	could pay for a water tank, which can be put together in just 45 minutes and is large enough to provide 750 people with their daily water requirements.
<b>£80.00</b>	could pay for a 100-litre cooking pot for use in a feeding centre		

To find out more, please contact:

**Supporter Relations**, Oxfam, 274 Banbury Road, Oxford OX2 7DZ

Phone: 0870 333 2700 Fax: 01865 312452 E-mail: [oxfam@oxfam.org.uk](mailto:oxfam@oxfam.org.uk)

Or visit Oxfam's website, which contains lots of up-to-date information about our work:

**[www.oxfam.org.uk](http://www.oxfam.org.uk)**

# Recycling Games

**Aim:** to reinforce what goes into a recycling bin.

A number of different activities, especially for younger children, which could be used in the hall or outside.

## What's in the bin?

6 items that go into a recycling bin are chosen e.g. newspaper, soup tin, plastic milk bottle, drinks can, cardboard box and a banana skin.

Children practice the actions for each item:

1. Newspaper - reading the paper
2. Soup tin - Holding bowl and slurping soup
3. Plastic packaging – Ripping open a package
4. Drinks can – drinking from a drinks can and rubbing tummy
5. Cardboard box – jumping up and down flattening the box
6. Banana skin – sit down holding your nose and pulling a funny face.

Similar to musical bumps except with out the music. Children run around the room and the leader calls out one action e.g. newspaper, children all need to standstill and start reading their imaginary newspapers.

When the leader calls 'banana skin' the last child to sit down is out.

## What Rubbish!

Prepare stickers with 4 different types of waste names e.g. cans, plastic bottles, newspapers and green waste. Each child has a sticker stuck to their back. Go around the room to find the others who have the same name. May ask questions of each other to try and guess what they are, not allowed to ask what they are. First group to find all their members wins.

## Re-In-Can-Nation

You will need: Large blanket or two  
A collection of furry animal toys (optional)

**Aim:** To teach children the reason for recycling

### Set the scene

These children represent a mountain. There are all kinds of creatures that live on this mountain in the shade of the forests and heaths. Get the children to think of some of the animals and plants that live on the mountain. Give each mountain child a furry animal to hold.

### First scenario:

Dig into the mountain (half the class are the mountain)

Metal ore taken out (One child is removed from the mountain-must drop his toy)

Smelted (Two children mime giving off heat onto the mountain child)

Rolled and pressed into bars (Two rollers turn round on the spot, two pressers gently press mountain child onto the floor.)

Taken to the can factory.

(Mountain child stands with hands clasped in front and one child is a lorry who takes the bar of aluminium to be made into a can.)

Rolled and pressed into sheets Two rollers turn round on the spot, two pressers gently press mountain child onto the floor.)

Rolled and made into cylinders Two rollers turn round on the spot

Top and bottom is hammered on. Two children hammer

Filled with drink One child is filling the can with imaginary drink

Taken to the shop Lorry driver takes the can to the shop

Shopkeeper stacks the shelves

Customer buys a drink

Drinks the drink and throws it into the rubbish sack

Rubbish sack is taken to the landfill site

(Landfill site is a large blanket placed on the ground and the can child lays down on it.)

#### Plenary:

As each child from the mountain is processed eventually there is no more mountain left to use and no more cans are produced.

The furry animals have no where to live...

During the second scenario the children very quickly realise that they can make more cans and save a lot of the mountain for the furry animals.

#### Second scenario:

Same as first but the cans get recycled.

Dig into the mountain (half the class are the mountain)

Metal ore taken out (One child is removed from the mountain)

Smelted (Two children mime giving off heat onto the mountain child)

Rolled and pressed into bars (Two rollers turn round on the spot, two pressers gently press mountain child onto the floor.)

Taken to the can factory.

(Mountain child stands with hands clasped in front and one child is a lorry who takes the bar of aluminium to be made into a can.)

\*

Rolled and pressed into sheets Two rollers turn round on the spot, two pressers gently press mountain child onto the floor.)

Rolled and made into cylinders Two rollers turn round on the spot

Top and bottom is hammered on.

Two children hammer

Filled with drink One child is filling the can with imaginary drink

Taken to the shop Lorry driver takes the can to the shop

Shopkeeper stacks the shelves

Customer buys a drink

Recycles can child goes back to \*

## Recycling Rally

You will need:

A large open space such as the school hall or playground.

1. Make up 4 large "Game Cards" see page 38.
2. Each team needs a different coloured set of "Picture Cards" see pages 39 & 40.

Pupils get into two teams and stand in a long line one behind the other. Each team is handed a set of picture cards. Each child takes a card.

Place the 4 different "Game Cards" in an arc on the floor opposite the teams at the other end of the large open space.

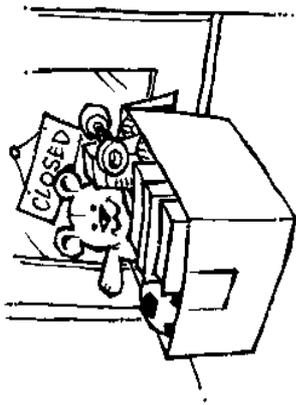
Pupils race (fast walking, no running) against the other team and have to place a "Picture Card" on the correct "Game Card" one at a time.

At the end total up the correctly placed "Picture Cards" and the team with the most correct answers wins.

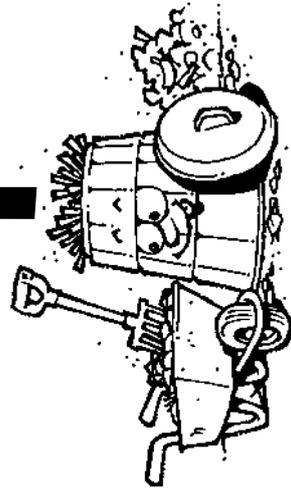
# Recycle



# Charity

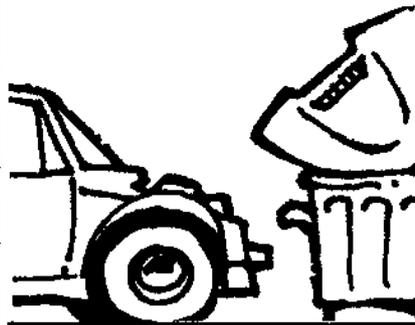


# Compost

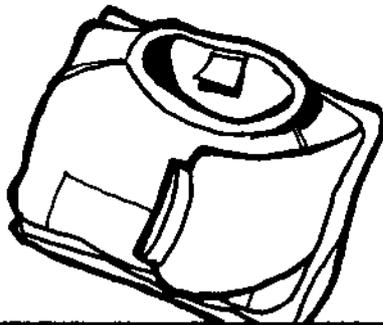


# Re-Use

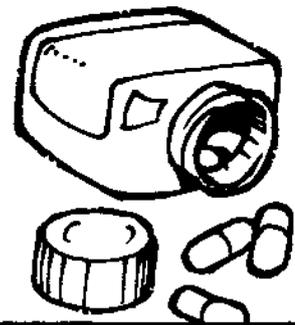




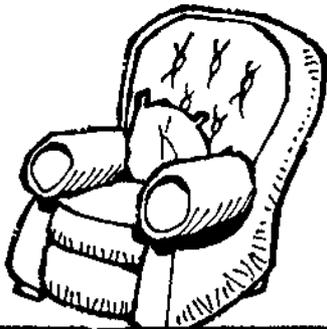
**Scrap Metal**



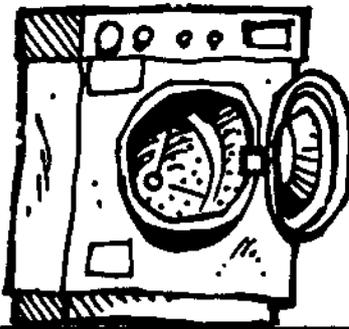
**Clothes**



**Medicines**



**Furniture**



**Washing Machines**



**Mobiles**



**Newspaper**



**Shoes**



**Food Cans**



**Computers**



**Glass Milk Bottles**



**Paper**



# Recycle Rally

Activity 8a

Picture Cards

(enlarge on your copier: A4 to A3 ratio 141%)



**Books**



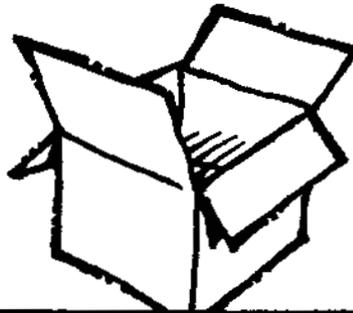
**Potato Peelings**



**Plastics**



**Drinks Cans**



**Boxes**



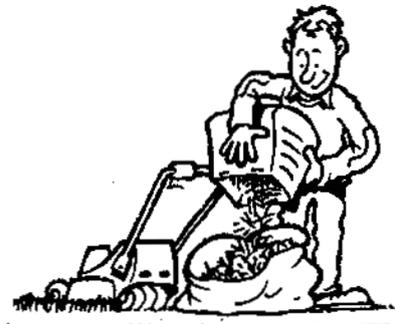
**Envelopes**



**Plastic Bags**



**Glass Bottles**



**Grass Cuttings**



**Glass Jars**



**CDs & Tapes**



**Pens & Pencils**



# Waste on the Web

**Aim:** To allow children to explore the internet to find up to date information on waste issues.

**National Curriculum Links:** English, ICT

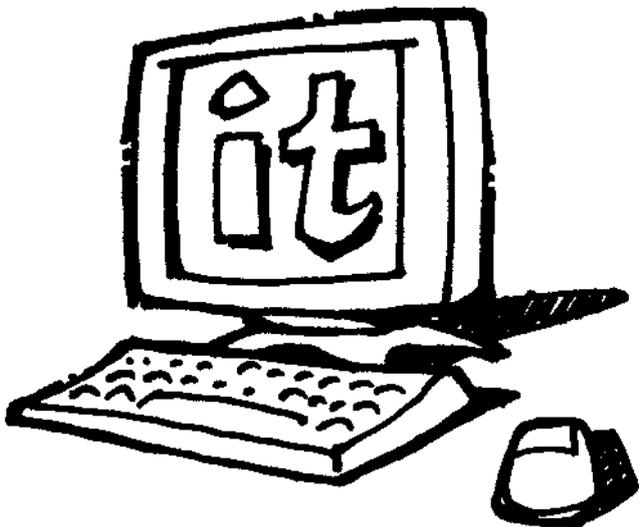
**You will need:** A computer with internet access, copies of worksheet 9a

**Task:**

In pairs the children will need to

- Think of two key words about waste and write them down on worksheet 9a.
- Log onto the Internet
- Go to [www.bbc.co.uk](http://www.bbc.co.uk) and select BBC news homepage
- Type in one of your key words and select search

Make some notes about each story. Encourage the children to write notes and summaries to jog their memories rather than copying the whole story. Bullet points may help them summarise the main facts.





# Glass lasts forever

**Aim:** To explain the steps in the process of the production of glass and to encourage glass recycling.

**National curriculum Links:**

English, D&T, Geography, PSHE & Citizenship

**Age:** years 3-6

**You will need:** Activity sheet and scissors.

**Task**

The children will need to know how glass is made. Each picture represents one stage in the life of a glass jar or bottle. The children cut them out and arrange them in sequence following either a linear progression (glass going to landfill) or a circular process (glass being recycled). Each stage of the process will involve a use of energy e.g. in mining raw materials, making the glass, transporting the glass jar etc. The recycled glass jar uses the least number of stages and therefore less energy and resources. The pupils will have pieces left over when ordering the recycling loop, this represents the energy saved.

The children could be encouraged to draw more pictures to represent other stages in the process. The children may work in pairs or small groups.

**For your information**

Glass is made from sand, soda ash and limestone. These minerals are obtained by quarrying.

Different mixtures of these minerals (depending on the colour of glass required) are melted in a furnace. This is then poured into moulds to make bottles and jars.

Glass can be recycled over and over again without losing any of its strength or qualities. Once the glass has been collected from the bottle banks it is crushed and can be melted down straight away.

This saves energy, reduces the amount of mining for raw materials, reduces the number of bottles and jars going into landfill, and reduces pollution and the release of carbon dioxide (greenhouse gases).

Glass bottles have been found intact inside the pyramids 3.5 thousand years later!

**Answers**

Glass goes into Landfill

Seven stages in order 9,2,8,3,1,4,6 (linear)

Glass being recycled

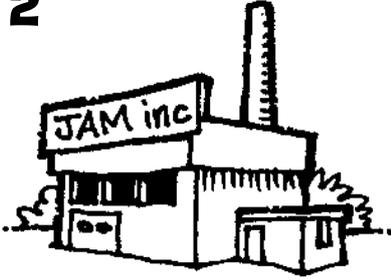
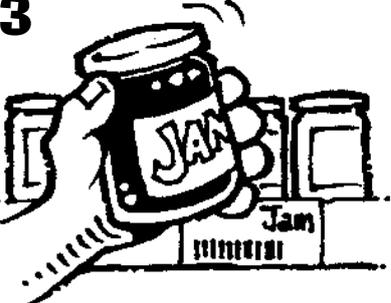
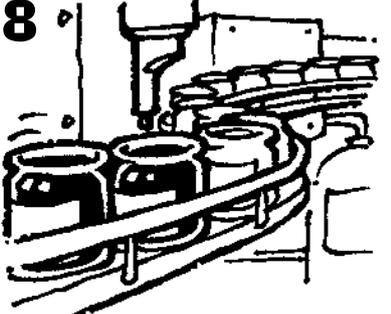
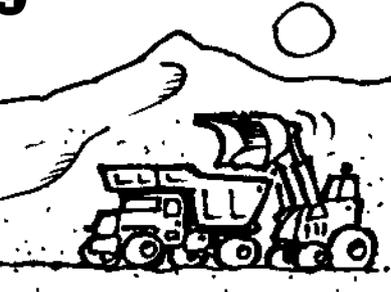
Six stages in order 1, 7, 5, 2, 8, 3, (circular)



Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Some stages in making and using glass

<p>1</p>  <p>Jam spread from the jar at home</p>	<p>2</p>  <p>Factory where glass jars and bottles are made</p>	<p>3</p>  <p>Jam jar bought at the supermarket</p>
<p>4</p>  <p>Jar thrown in the waste bin after use</p>	<p>5</p>  <p>Recycling bank: Glass is returned to the Glass making factory to make more bottles and jars</p>	<p>6</p>  <p>Jar buried and lost forever in a landfill site</p>
<p>7</p>  <p>Bottles and jars saved at home for recycling</p>	<p>8</p>  <p>Factory where jars are filled with jam</p>	<p>9</p>  <p>Sand: the raw material for glass from a quarry</p>

Cut out each square and arrange as many pieces as needed to show:

1. A jam jar made from raw materials to the jam jar ending up in a landfill site.  
How many squares were used?
2. Jam being eaten and then the jar being recycled into new jars.  
How many squares were used this time?

[www.wasteaware.org.uk](http://www.wasteaware.org.uk)



# Composting

**Aim:** To show children that some materials decompose more quickly than others.

**National Curriculum Links:** Science

**Age:** years 3-6

**You will need:**

8 large plastic pots (old plant pots would be ideal), rotting compost and soil mixture, water and a selection of materials e.g. banana skin, apple core, coin, piece of newspaper, plastic bag, carrot, bread and a crisp packet

**Task**

Half fill each pot with compost and add the material for the experiment. Top up with compost, label and water. Leave in a warm place; periodically check that the soil is moist. One week later tip out and record what you find. Repeat at weekly intervals.

**For your information**

Disposable nappies may take 50 years to decompose (possibly longer)! If the children in your class are 10 years old and their parents used disposable nappies, then it will be at least another 40 years before those nappies begin to decompose. By then your children will be about 50 and may be grandparents!

If only disposable nappies are used from birth to potty training at about 3 years old then approximately half a tonne of nappies will be used for each child.

That's the same weight and volume as a small family car!

If Henry the VIII had been able to eat a takeaway beef burger then the polystyrene packaging would be just starting to decompose about now!





# Mini-Beasts

**Aim:** To look at life processes and living things, food webs, classification of organisms.

**National curriculum Links:**

Science, PSHE& citizenship, Art and design

**Age:** years 3-6

You will need: A box of soil and organic material from a compost heap, magnifying glasses, rubber gloves, specimen dishes, trays, spoons and identification books or charts.  
Copies of the activity sheet 12a.

**Task**

Explain that compost is made when organic material is eaten and broken down by micro-organisms like bacteria and fungi, many of which we can't see or by tiny creatures (mini-beasts) which eat the organic matter and the stuff they can't eat makes rich fertile soil. Some mini beasts like worms, slugs, wood lice, snails and millipedes eat the organic matter and some prey on them like black beetles, centipedes, earwigs and spiders. Other larger animals like hedgehogs, mice and birds then eat the mini-beasts.

Put some of the compost into a tray and ask the children to gently rake through it with a spoon and pick out any mini-beasts they find and put them into specimen dishes. Using a magnifying glass draw each new mini-beast they find and try to identify it.



#### For your information

It is very important for us all to reduce the amount of organic waste going to landfill.

At landfill sites rubbish is dumped together, and the organic waste decomposes without air.

This produces methane a powerful greenhouse gas contributing to climate change.

There are two ways of reducing the amount of organic waste going into both the bins at home and at school.

#### 1. Composting

If you would like to start composting at school you will need to have access to a range of different organic waste. Just using the fruit or vegetable remains from infant snack time will not work as the fruit is quite acidic and needs to be mixed with torn up newspaper, leaves, weeds or grass clippings in order to compost down.

If you do decide to start a compost heap you can obtain compost bins quite cheaply from your local council (see useful contacts at the back of this pack). You will need two or three to begin with. Line a bucket with newspaper and collect all the organic waste from snack time, then train the children to empty the bucket (newspaper and all) in a different bin each day.

If you have a gardening club or helpful parents suggest they weed or gather up the leaves in the autumn and put them into the bin again explain about using each bin in turn. If you do not have this kind of help then once a week get a few children to tear up newspaper to add to the compost bins.

Compost bins are best sited away from the school buildings perhaps close to a wild life area or the school pond if you have one.

This will make using the compost bin as a teaching tool easier as organisms in different habitats can be compared whilst the children are all with in sight.

Compost is safe to handle but make sure children wash their hands after using it and keep cuts and grazes covered.

#### 2. Vermiculture (Wormery)

All you need is a small bin (8-16 inches deep) with a lid. Drill holes in the bottom and sides to aid aeration. Place the bin in shady spot and stand it on bricks inside a dish or on a tray.

The worms do not only produce rich compost but also a highly nutritious, liquid fertiliser suitable for tomatoes or houseplants.

Fill the bin with torn up, moistened newspaper and a couple of handfuls of soil.

Add the worms and food.

- Worms – can be obtained from angling shops and the best kinds are red worms also called tiger worms. These worms do well in confined spaces, reproduce quickly and can eat more than their own weight each day.
- Food – worms like vegetable scraps, fruit peelings, bread and grains, tea bags, non-greasy leftovers, coffee grounds and filters, well-crushed eggshells.
- Do not compost: meat, bones, fats, dairy products, rubber bands, twigs and branches, dog and cat faeces, greasy foods.

Start off feeding the worms only small quantities of food gradually increase the amount as the worms breed and become more prolific. Feed the worms by mixing the food into the bedding in one area at a time and rotating around the bin. By the time you get back to the first spot most of the food should have been eaten. If they haven't quite finished the food then just feed the worms less for a little while.

Name:

Date:

- Gently rake through the box of compost
- Gently lift out the mini-beast and place in a smaller tray
- Use a magnifying glass
- Draw a picture of the mini-beast and give a brief description.  
(Hint how many body parts does it have? How many legs? What colour is it? etc)



DRAW SPECIMIN ①.

DRAW SPECIMIN ②.

DESCRIPTION:

DESCRIPTION:



# Responsibilities



## Activities and Lesson Plans

- Activity 13:** Challenge Waste Game  
Teachers Notes  
Information Sheet 13A  
Activity 13a
- Activity 14:** Litter Survey  
Teachers Notes  
Activity Sheet 14a
- Activity 15:** Fly Tipping; Rubbish Stories  
Teachers Notes  
Activity Sheet 15a
- Activity 16:** Decisions, Decisions  
Teachers Notes  
Activity Sheet 16a
- Activity 17:** Actions Speak Louder  
Than Words  
Teachers Notes  
Activity Sheet 17a

# Challenge Waste Game

**Aim:** To reinforce all the children have learnt about reducing waste and being environmentally friendly.

**National Curriculum Links:** English, Art and Design, D&T, Citizenship and PSHE

**Age:** Year 3-6

**You will need:**

Colouring pens and pencils

Dice and counters

A3 copies of page 53

**Task**

In pairs the children are asked to design a board game called 'Challenge Waste'.

Show the children the example copy of the board game. It works in a similar way to snakes and ladders - Good things for the environment move the player forward, bad things move them back.

Think as a class of some examples of good waste practices 'I re-use my lunchbox containers', 'our plastic bottles get recycled' etc and the bad waste practices 'I throw my comics in the bin', 'I go by car everywhere' etc.

Give each pair a copy of a blank board and explain that their task is to invent their own 'Challenge Waste' board game remembering that good things for the environment move you forward and bad things send you back.

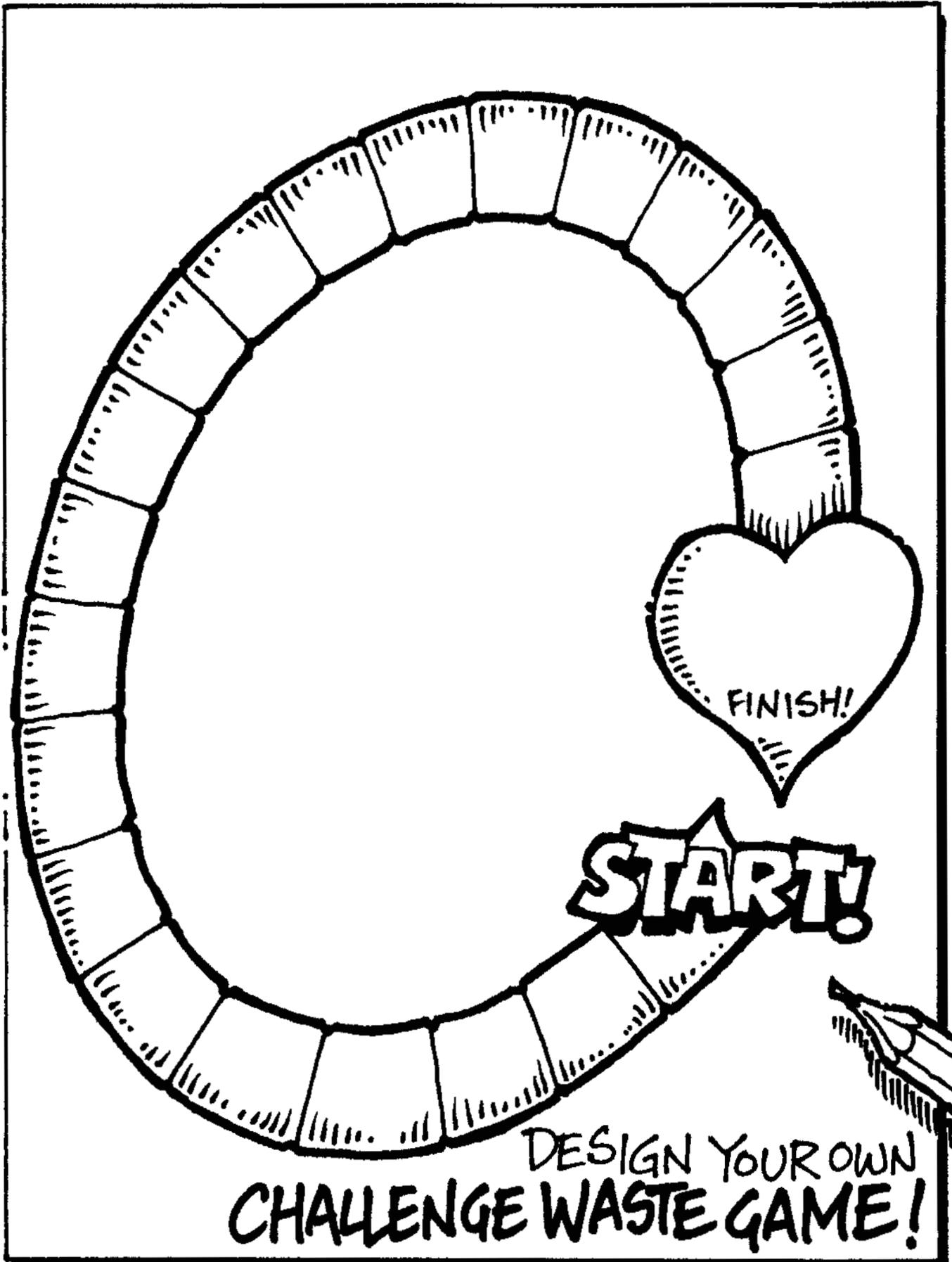
Children can also be encouraged to decorate their board in a waste and recycling theme.

Once the games are finished they can play their own games.

More able children might like to design their own board template.

Name:

Date:



## Information Sheet

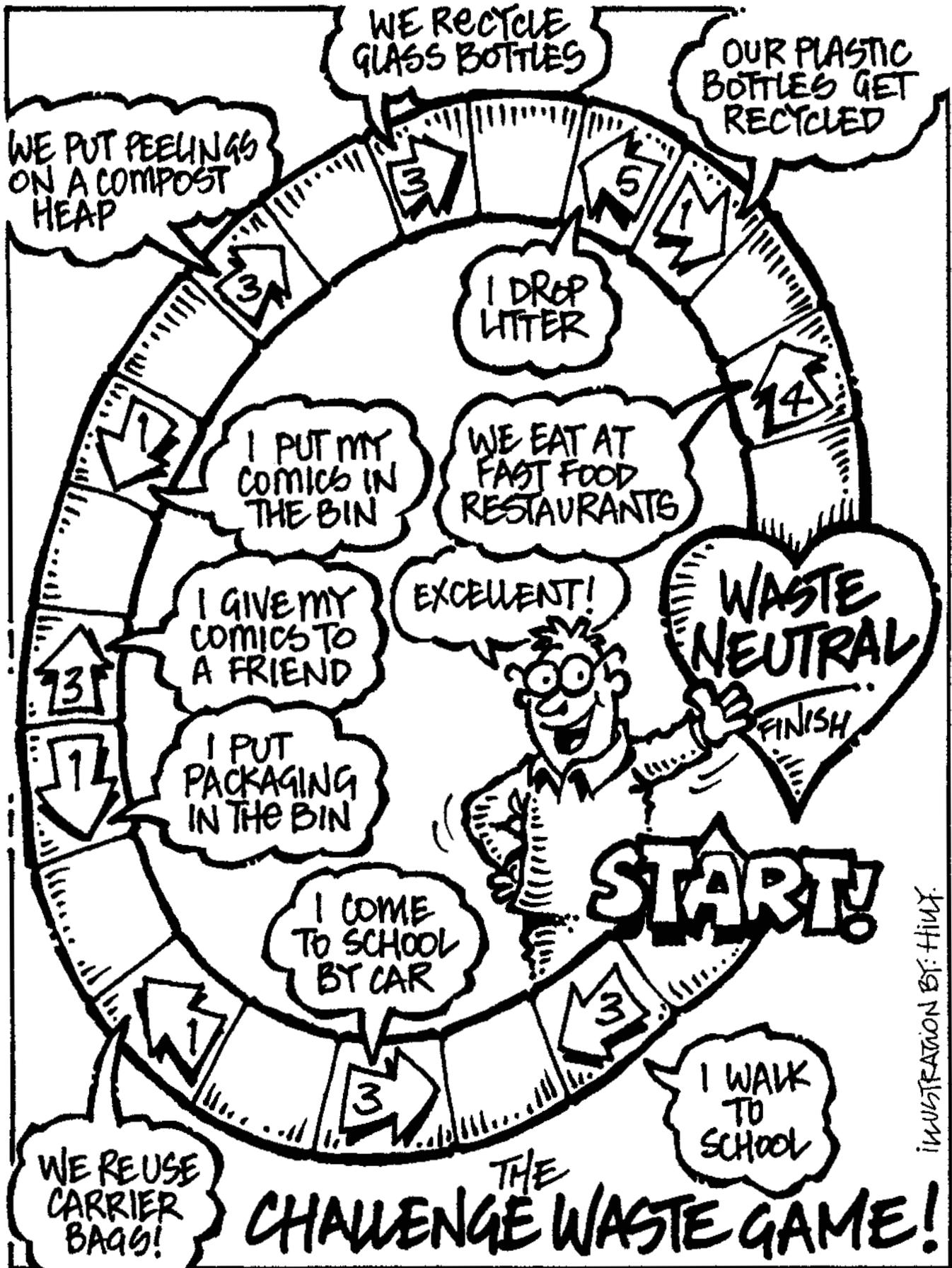


ILLUSTRATION BY: HINX

# Litter



**Aim:** Litter awareness, personal responsibility for causing litter, ways of reducing litter, environmental quality.

**National Curriculum Links:**

Maths, Geography, Citizenship

**Age:** year 3-6

**Materials needed**

Litter Picker for picking up rubbish  
Rubber gloves  
Plastic bags for collecting the rubbish  
A4 clip board  
A map of the school area  
Graph paper  
Spring balance  
Copy of page 56

**Task:**

The basic task is a litter survey.  
The litter is collected and the amount of litter from each area of the school could be weighed and/or counted and recorded on a map.  
Ensure the playground is not swept the evening before the survey. Surveys are best carried out first thing in the morning, after break and lunchtime.

Record the information in three ways

- The time of day
- Where the litter was found
- The type of litter

The results could then be represented as a graph.

Having identified the problem areas:

**Discuss**

- Who could be held responsible regarding the litter and suggestions could be proposed for solving the problem.
- How to prevent litter
- The place round the school that always look clean and well cared for
- Sources of litter. Does the litter come from the pupils, parents or evening visitors, or does it blow across from other areas.

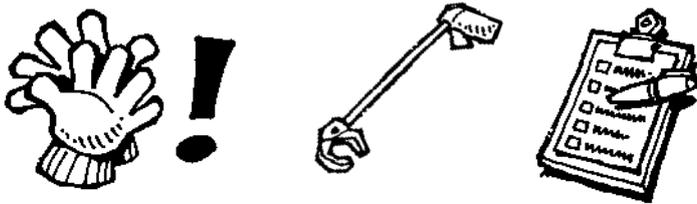
The follow up task – Activity 14B asks children what they would do in a variety of situations.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

You are going to find out how much litter there is in your school and come up with some ways of making your school less likely to have litter problems.

Use the table below or design your own to record the items of litter you collect. There is an example to help you.



Type of litter	Quantity	Total
<i>paper</i>	<i>## //</i>	<i>7</i>

Type of litter	Quantity	Total
Paper		
Glass		
Metal		
Food scraps		
Plastic		
Wood		
Other		

Tick the box that best describes litter in your school.

<input type="checkbox"/>	Our school is free of litter
<input type="checkbox"/>	Our school has very little litter
<input type="checkbox"/>	Our school has quite a lot of litter
<input type="checkbox"/>	Our school has litter everywhere



Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Litter



Tick the box of the answer you think is right

**1. You have just finished a can of drink in the playground  
What do you do with the empty can?**

- a. Put it in the nearest bin
- b. Take it home and put it in the bin
- c. Leave it on the ground for the caretaker to pick up
- d. Take it home and save it for recycling

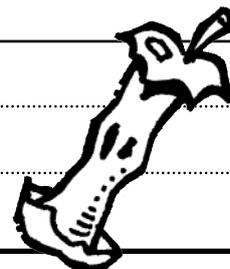
**2. You have an empty carrier bag from some shopping you bought earlier  
What do you do with it?**

- a. Leave it on the ground
- b. Throw it straight in the nearest bin
- c. Put it safely in a drawer to reuse next time you go to the shops

**3. You have just eaten an apple at break time  
What do you do with the apple core?**

- a. Leave it on the ground
- b. Put it in the nearest compost bin
- c. Put it in the nearest litter bin



# Fly Tipping Rubbish Stories

**Aim:** to make children aware of fly tipping and the environmental effect it has for everyone.

**National Curriculum Links:**  
English, PSHE & Citizenship

**Age:** years 3-6

**You will need:** Copies of the story and questions, pencils and writing paper

**Task:**

Explain that fly tipping is dangerous and against the law. Fly tipping is when people dump large items or sometimes whole lorry loads of rubbish by the side of the road or in the park.

Discuss with the children why some people do this. Some waste is highly toxic and therefore expensive to dump.

Some people don't want to spend time and money getting rid of things safely so they just tip it where they think no-one will see them.

Emphasise to the children that in most places residents can have big items taken away free of charge or very cheaply by the council. If you fly tip you can now be fined up to £50,000 as part of the Cleaner Neighbourhoods Act.

It is the responsibility of the family to check that whoever takes away their waste is not going to fly tip it by asking to see their 'Waste Carriers Licence'.

Year 3-4. Read the story and ask the children to draw a story board illustrating the story.

Year 5-6. Read the story with the children and ask them to answer the questions.



### Information Sheet

"Hello, Emma. I'm Wiz, spider 'extraordinaire' in charge of Web Adventures Inc. So you want to know why you shouldn't drop litter. Well..."

He was just about to start when a tatty old lorry rumbled by. "Come on!" Wiz shouted rushing over to a bike. "Nothing like the real thing. Let's follow that lorry. I know what those two no-goods are up to. Jump on!"



"But that's far too slow. We'll never catch them up on that!" protested Emma.

"Oh yes we will!" Wiz laughed. "See all these legs? That's real pedal power!"

They hurtled off up the road. Emma hung on, exhilarated and terrified at the same time.

The lorry stopped by a riverbank and reversed to the edge. Wiz and Emma hid behind a leafy bank. Two men got out.

"This'll do," said the ugliest of the two rubbing his hands. "Dump it here and let's get out of it before anyone sees us. It will save us a load of money not going to the dump."

Wiz nudged Emma. "Watch this!" he whispered.

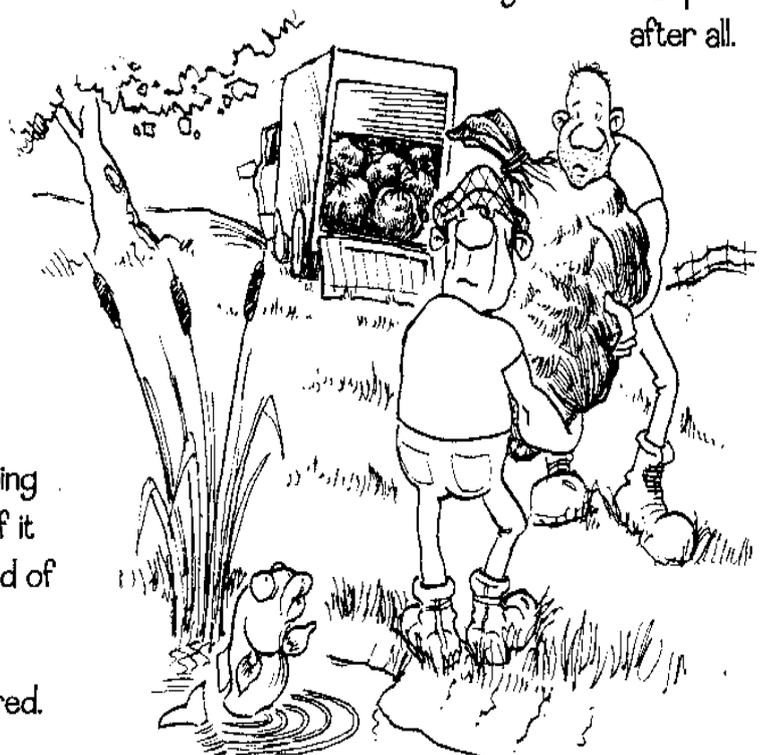
As they reached the water's edge, a fish appeared standing on its tail. "Excuse me sirs!" it enquired in a very posh voice. "Are you thinking of leaving that rubbish here?"

"What did you say?" growled the ugly one looking at his mate.

"Nothing!" said the other. "I thought it was you".

Then they saw the fish. It asked again if they were going to leave the rubbish. "You see," it said, "all that rubbish poisons us and makes us ill. Of course if you catch us on one of your fishing trips and eat us then you'll get all your poison back. But that's only fair isn't it? Have a nice day!"

It went back under the water and swam off. The men looked at each other. Scared out of their wits, they jumped in their lorry and decided to go to the dump after all.



**Name:**

**Date:**

1. What kind of animal is Wiz?

.....

2. What did Emma and Wiz chase on the bicycle?

.....

.....

3. Why do you think Emma was exhilarated and terrified at the same time? Describe a situation when you have been excited and scared at the same time.

.....

.....

.....

.....

.....

4. Why did the two men not want to take their rubbish to the dump?

.....

.....

.....

.....

.....

5. If the waste had come from their home, what kind of things might have been in it that could poison the water and the fish?

.....

.....

.....

6. What clues are in the story to suggest that Emma was dreaming?

.....

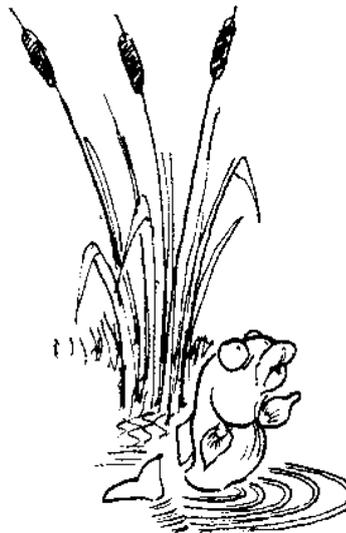
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.....

7. Colour the picture of the fish in the river and write your own caption of what the fish might be saying to the two men.



8. After this, Wiz takes Emma to talk to some of his animals friends who have been hurt by rubbish not discarded in the proper place. Continue the story in the same style to include

- a) A small animal that was trapped in an empty drink can.
- b) An animal that was caught up in a piece of fishing line left on the bank.
- c) An animal that stuck its head in a plastic bag while trying to get some food still left in it.

# Decisions, Decisions

**Aim:** To make children aware that waste issues are complex and all solutions have advantages and disadvantages.

**National Curriculum Links:** English, Citizenship

**Age:** Years 5-6

**You will need:** Activity sheets

### Task

Divide the class into small groups of four or five. Give each group a different question to discuss.

This task asks the children to discuss what they think would be best to do in each situation.

The children may choose more than one option for each question.

Ask one or two children from each group to present their arguments to the rest of the class.

(Please be aware that for each question there may be several correct answers. The class should discuss the pros and cons of each option).



Name:

Date:



1. **You are going to buy some chocolates for your Mum's birthday. Do you:**
  - a) Buy a large, flashy box which has only a few chocolates inside?
  - b) Buy a bar of chocolate?
  - c) Buy a bag of loose chocolates where you can choose the flavours
  
2. **You have bought some new trainers. The shop assistant wraps them in tissue paper, puts them in a cardboard box and puts the box in a plastic bag. Do you:**
  - a) Ask her not to wrap up the trainers they will go straight into your rucksack.
  - b) Accept the plastic bag and then unwrap the trainers and leave all the packaging on the counter.
  - c) Take everything home and put all the paper and card into the recycling bin and the plastic bag with the others to be re-used.
  - d) Take everything home and put all the packaging including the bag into the bin.
  - e) Throw your old trainers into the bin.

3. **Your Mum has sent you to the shop to buy 4 pints of Milk.**
  - a) Do you go to the supermarket and select 4 individual plastic bottles.
  - b) Go to the supermarket and select 1 four pint plastic container of milk.
  - c) Put the containers into the bin when they are empty.
  - d) Put the containers into be recycled when they are empty
  - e) Ask Mum to get milk delivered in glass bottles.
  
4. **You bring a packed lunch to school each day. Do you:**
  - a) Ask Mum to buy big bags of raisins/ biscuits so you can put a few in a small plastic box each day.
  - b) Don't care how the food is packed and just put all the rubbish in the bin.
  - c) Make your own lunch and refill a water bottle with juice.
  - d) Recycle all the rubbish at the end of the day
  - e) Ask Mum if you can have school dinners

# Actions speak louder than words

**Aim:** Reducing waste is everyone's responsibility.

**National Curriculum Links:**  
English, PSHE & Citizenship

**Age:** Years 3-6

**You will need:** Activity sheet

**Task:**

To produce an action on waste certificate. Explain that it is everyone's responsibility to reduce waste and dispose of rubbish responsibly. The activity sheet suggests many things that the children can do to reduce the waste they create. Read through the options and then ask the children to commit to doing one action for the next month. Encourage the children to pledge things that are realistic and list them on their certificate. This can be cut out and stuck on their bedroom wall as a reminder.

Children learn by example and if they see the school cares about the environment and recycles then it will be easier for them to accept this as part of their lives.

The teacher could make a pledge too on behalf of the school or class



# Actions speak louder than words Activity 17a

**Name:**

**Date:**

Choose one pledge for each material and write it down on your certificate.

## Paper

Refuse paper bags in shops when possible

Recycle all waste paper

Write on both sides of the paper

Save paper that has only been written on one side for wet playtimes/draft copies/computer print outs.

Pass on comics to a friend

## Glass and plastic

Recycle all empty jars and bottles

Always leave out milk bottles for collection by the milkman

Recycle all plastic bottles

Choose items with the least packaging

## Organic matter

(things like potato peelings and garden waste).

Put kitchen waste on the compost heap

Use the garden waste collection service provided by the council.

## Clothing

Pass on outgrown clothes to a younger brother/sister or a friend.

Give outgrown, good quality clothes to a charity shop.

Take tatty clothes to the recycle bank

Cut up tatty clothes and use as dusters

## Water

Switch off the tap while I clean my teeth

Try to use the shower rather than a bath

Fill a basin with water to wash my face rather than letting the water run.

## Energy

Remind Mum not to overfill the electric kettle

Switch off lights when I leave a room empty

Switch off television screens and computers so all the lights go out



Name: \_\_\_\_\_

Date: \_\_\_\_\_

Choose one pledge for each material and write it down on your certificate.

# Recycling Action

C E R T I F I C A T E

This is to certify that:

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Paper



Glass & Plastic



Organic Material



Clothing



Water



Energy



**I will do my  
best to  
reduce the  
amount of  
waste I  
produce by  
these actions**

Signed by their teacher: \_\_\_\_\_





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**Local Contacts**


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**Community Recycling Officer**

Slough Borough Council  
01753 875255  
recycling@slough.gov.uk

For information about recycling in your school, composting, assemblies and resources.

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**Slough Accord**

(waste contractor for Slough)  
0800 6346301 Details of collection days for homes and schools. Enquiries and to report missed collections.

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**Slough Furniture Project**

01753 629535  
Collect good quality furniture, household goods and bric-a-brac free of charge. Items then made available to low income families.

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**St Andrews Furniture Mart**

01628 666900 As above

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**Straight Composting**

0845 130 6090  
www.getcomposting.com/slough

Provide discount compost bins to schools and Slough residents

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**The Slough Resource Centre**

Haymill Centre  
112 Burnham Lane  
Slough SL1 6LZ  
01628 660098

Toy, equipment and publication library and recycled scrap store. The scrap store is an innovative project that recycles all manner of materials for use in craft projects and play. Browse the store and pay £1.00 per shopping basket of materials (NB- there is a small initial joining fee).

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**RISC (Reading International Solidarity Centre)**

contact: Barbara Lowe, 35-39 London Street, Reading, RG1 4PS  
www.risc.org.uk  
0118 958 6692

Loan imaginative and engaging education resources from around the world. Recycled artefacts to loan include children's toys, puppets, clothing and instruments. Browse the artefact database online.

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**Thames Valley Hospice Mart**

01753 866303 As above

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### National Contacts

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#### **Community Recycling Network (CRN)**

Trelawny House, Surrey Street, Bristol BS2 8PS

Tel: 0117 9420142

[www.crn.org.uk](http://www.crn.org.uk)

Represent practical community recycling and waste management projects through out the UK.

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#### **ENCAMS**

(formerly going for green/tidy Britain group)

Elizabeth House, The Pier, Wigan, WN3 4EX

Tel: 01942 612639

[www.encams.org](http://www.encams.org)

Environmental Campaign (ENCAMS) runs the Keep Britain Tidy campaign and also the Eco-schools award programme.

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#### **Women's Environmental Network**

PO Box 30626 London E1 1T2

Tel: 020 7481 9004

[www.wen.org.uk](http://www.wen.org.uk)

Campaign on environmental and health issues from a women's perspective including the use of re-usable cotton nappies.

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#### **Friends of the Earth**

26-28 Underwood Street, London, N1 7JQ

freephone: 0808 800 1111

[www.foe.org.uk](http://www.foe.org.uk)

Can provide information on waste and recycling some of it free.

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#### **Global Action Plan (GAP)**

8 Fulwood Place, London, WC1V 6HG

Tel: 020 7405 5633

[www.globalactionplan.org.uk](http://www.globalactionplan.org.uk)

GAP produce action packs for homes and schools to help the environment.

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#### **Henry Doubleday Research Association (HYDRA)**

Ryton Organic Gardens, Coventry, Warwickshire, CV8 3LG

Tel: 024 7630 3517

[www.hdra.org.uk](http://www.hdra.org.uk)

Information on making compost heaps and vermiculture.

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#### **Mailing Preference Service (MPS)**

tel 020 7291 3319 or log onto

[www.mpsonline.org.uk](http://www.mpsonline.org.uk)

Register with the MPS to dramatically reduce the amount of junk mail you receive.

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#### **Federation of City Farms & Community Gardens**

The Greenhouse, Hereford Street, Bristol BS3 4NA

Tel: 0117 923 1800

[www.farmgarden.org.uk](http://www.farmgarden.org.uk)

For information on composting.

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#### **Recycle Now**

Helpline 0845 331 3131

[www.recyclenow.com](http://www.recyclenow.com)

The Recycle Now campaign is run by the Waste and Resources Action Programme (WRAP).

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#### **Recoup**

9 Metro Centre, Welbeck Way Woodston,

Peterborough PE2 7WH

Tel: 01733 390021

[www.recoup.org](http://www.recoup.org)

The UK's plastic recycling organisation. The website has a resource centre, fact sheets and clip art.

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#### **Recycle-more**

[www.recycle-more.co.uk](http://www.recycle-more.co.uk)

Provides information on recycling in the UK especially packaging and recycling in schools.

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#### **Steel Can recycling Information Bureau (SCRIB)**

Port Talbot, SA13 2NG

Tel: 01639 872626

[www.scrib.org](http://www.scrib.org)

The web site has a kids zone, education pages and they can provide copies of Ollie Recycles CD Rom.

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#### **Textile Recycling Association**

16 High Street, Brampton, Huntingdon

Cambridgeshire, PE28 8TU

Tel: 01480 455249

[www.textile-recycling.org.uk](http://www.textile-recycling.org.uk)

Information on textile recycling.

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#### **Wiggley Wiggles**

[www.wiggleywiggles.co.uk](http://www.wiggleywiggles.co.uk)

Tel: 01981 500108

Suppliers of wormeries and items for wildlife.

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### Useful Web Addresses

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Slough Borough Council  
[www.slough.gov.uk](http://www.slough.gov.uk)

High quality free images of all aspects of waste and recycling.  
[www.recyclenowpartners.org.uk/photolibrary.html](http://www.recyclenowpartners.org.uk/photolibrary.html)

Songs related to recycling  
[www.kidsrecycle.org/songs.php](http://www.kidsrecycle.org/songs.php)

Recycled products guide  
[www.recycledproducts.org.uk](http://www.recycledproducts.org.uk)

Steel Can Recycling Information Bureau (SCRIB)  
[www.oilierecycles.com/uk](http://www.oilierecycles.com/uk)

Centre for Alternative Technology  
[www.cat.org.uk](http://www.cat.org.uk)

The Composting Association  
[www.compost.org.uk](http://www.compost.org.uk)

Council for Environmental Education  
[www.cee.org.uk](http://www.cee.org.uk)

Department for the Environment and Rural Affairs (DEFRA)  
[www.defra.gov.uk](http://www.defra.gov.uk)

Education4sustainability  
[www.e4s.org.uk](http://www.e4s.org.uk)

Environment Agency  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

Global Footprints  
[www.globalfootprints.org](http://www.globalfootprints.org)

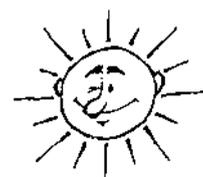
Real Nappy Association  
[www.realnappy.com](http://www.realnappy.com)





### Glossary

<b>Aluminium</b>	A light strong metal often used in packaging as foil and cans.
<b>Bacteria</b>	Micro-organisms that help break down (decompose) organic materials.
<b>Bauxite</b>	The rock/mineral ore from which aluminium is made.
<b>Biodegradable</b>	Something which breaks down into simpler elements such as carbon.
<b>Carbon</b>	An element that is one of the essential building blocks of life.
<b>Compost</b>	A soil-like material made from organic waste.
<b>Composting</b>	A process breaking down organic waste into a usable material.
<b>Conserve</b>	To look after something; to care for; not using up too many resources.
<b>Cullet</b>	Glass in bottle-banks collected for recycling.
<b>Decomposition</b>	The rotting and break down of organic material, involving bacteria.
<b>Ecosystem</b>	The complex web of life linking plants, animals, humans and other life forms and the environment they live in.
<b>Energy</b>	The force or strength to carry out activities.
<b>Energy from Waste (EfW)</b>	The process of capturing the energy released by burning (incinerating) rubbish.
<b>Environment</b>	The surroundings in which all plants and animals live.
<b>Fuel</b>	Coal or wood are examples of fuels burnt to provide power or heat.
<b>Furnace</b>	A very hot oven or fire used to heat or melt substances such as in glass making
<b>Global warming</b>	The warming of the earth's atmosphere caused by a build-up of 'greenhouse gases' such as carbon dioxide and methane. It is partly caused by human activity and pollution.
<b>Greenhouse gases</b>	Gases such as carbon dioxide and methane in the atmosphere which allow the heat of the sun to reach the earth but slow down its escape. Instead the heat gets radiated back to earth. This is called global warming.



### Glossary

<b>Habitat</b>	The natural home of any plant or animal.	
<b>Hierarchy</b>	A list of things in order of importance or priority.	
<b>Household waste</b>	Waste from your home	
<b>Household Waste and Recycling Centre</b>	A site provided by a local council where the public can recycle materials and dispose of other rubbish.	
<b>Impermeable</b>	A substance which does not allow fluid and/or gas to pass through. For example, a layer or lining found in a landfill site stopping liquids seeping down into the ground.	
<b>Incinerator</b>	A large furnace which burns waste, usually with energy being recovered.	
<b>Junk Mail</b>	Unsolicited mail sent to houses by advertisers and companies.	
<b>Kerbside recycling</b>	Collections picking up material at the boundary of a property or house.	
<b>Landfill</b>	A method of disposing of rubbish by putting it in holes in the ground – a landfill site.	
<b>Landfill site</b>	Large holes in the ground used for waste disposal.	
<b>Leachate</b>	A liquid that forms at the bottom of landfill sites as organic material rots down.	
<b>Litter</b>	Rubbish dropped in our streets and local environment	
<b>Methane</b>	A colourless gas produced from rotting organic waste. A greenhouse gas.	
<b>Micro-organisms</b>	Tiny creatures only seen with the help of a microscope.	
<b>Mineral</b>	A naturally occurring solid substance often obtained by mining.	
<b>MRF</b>	Materials Recycling Facility (pronounced murf) – a specialised building for separating, processing and storing materials separated from rubbish so they can be recycled into new products.	

### Glossary

<b>Natural</b>	Something occurring in nature, not human-made.
<b>Nitrogen</b>	A colourless, odourless gas that forms 78% of the air..
<b>Nutrients</b>	Substances or food necessary for the growth of plants and animals.
<b>Ore</b>	A naturally occurring rock or mineral that metals are extracted from.
<b>Organic</b>	Living or once living plants, animals, people (i.e. not synthetic)
<b>Organism</b>	A single living plant, animal, bacterium or fungus.
<b>Oxygen</b>	A colourless, odourless gas essential for respiration; also used in industry.
<b>Packaging</b>	Paper, cardboard, plastic or glass wrappings around the things we buy.
	
<b>Pollutants</b>	Substances which can damage the environment when released into it.
<b>Pollution</b>	The presence in the environment of harmful pollutants. substances or materials.
	
<b>Raw materials</b>	Materials used to make products e.g. sand to make glass, ore to make metal, oil to make plastic and wood to make furniture.
<b>Recycling</b>	Collecting and processing waste materials to make new products ready to be used again.
<b>Recyclable</b>	A resource able to be recycled.
<b>Reduce</b>	To make less; to become smaller
<b>Refuse</b>	Rubbish or waste
<b>Renewable</b>	A resource which can renew itself or be replaced e.g. wood.
<b>Resource</b>	Materials, energy or substances which we use
<b>Reuse</b>	Using a product more than once in the same form.
	
<b>Rubbish</b>	Materials that people no longer want or think there is no further use for.
<b>Steel</b>	Metal made from iron ore – steel is magnetic.

### Glossary

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<b>Sustainability</b>	The goal of using the Earth's resources in ways that do not diminish them and allow fair shares for all for the present and future generations.
<b>Sustainable development</b>	Development which helps achieve the goal of sustainability. It does not damage, or take too many natural resources; it leaves the environment in good order for future generations.
<b>Synthetic</b>	Artificial fibres such as lycra and nylon made using chemical processes.
<b>Textiles</b>	Fabrics or materials which can be natural or synthetic
<b>Vermin</b>	Unwanted pests such as rats and pigeons
<b>Vermiculture</b>	Composting using special worms.
<b>Waste</b>	Rubbish, refuse
<b>Waste management</b>	Looking after, or controlling, collected rubbish
<b>Waste minimisation</b>	Reducing the amount of waste produced.

