

Wiz's Wonderful Web



Support Materials
for teaching
Active Citizenship
with 7-11 year olds



**TIDY
BRITAIN
GROUP**

are you doing your bit?

About active citizenship

Active citizenship can be as straightforward as helping a neighbour. It can be as challenging as orchestrating a major campaign. For some it comes naturally, perhaps as a result of family tradition, a chance meeting, or an inspirational teacher. For many it needs to be encouraged, practised, developed and informed. We can't be active citizens without doing something. We also can't become active without some practical experience.

Institute of Citizenship



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Written by John Baines (Bureau for Environmental Education and Training) in association with Wayne Talbot (Wayne Talbot Associates).

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The opinions expressed in these materials do not necessarily represent the views of Tidy Britain Group, members of the Advisory Group or any of those involved in testing the materials.

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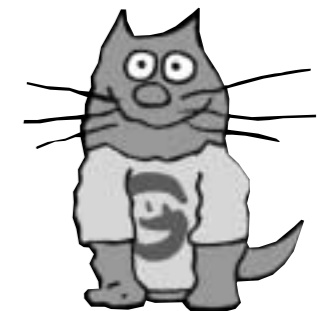
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About the programme

Welcome to Wiz's Wonderful Web (WWW) - part of a three-year programme from Tidy Britain Group to help the teaching of active citizenship.

These materials are part of the package for pupils aged 7-11. They use environmental issues associated with litter and waste to support the teaching of personal and social education and active citizenship. They are designed to start helping young people become informed and actively responsible citizens who make a positive contribution to society at personal, local and global levels.

There is also an active citizenship website where you can use an interactive version of the reading book, download all these materials and, for a limited period, join in an online debate with experts on litter and waste. You will also be able to put your school's work into an Internet exhibition open to anyone to visit.

To find out more, go to the Tidy Britain Group website (<http://www.tidybritain.org.uk>)



Estelle Morris
MP says...

"Citizenship matters. Educating for citizenship and democracy is vital if we are to have a society which is equipped to face the challenges of the 21st century."

The written materials consist of:

- A class reading book called Wiz's Wonderful Web - in fact two books, an A3 Big Book for group reading and an A5 version for individual reading.
- This booklet containing support materials that include:
 - Section 1, Notes for teachers, has background information about the package, suggestions for using the materials, curriculum links and sources of further information.
 - Section 2, Information Sheets, provides teachers with information to help them teach the issues and answer pupils' awkward questions.
 - Section 3, Wiz Sheet, is a puzzle book for the pupils. It should reinforce the learning that has taken place.
 - Section 4 provides a couple of examples of worksheets with activities for the pupils.

Other materials can be found at the websites listed in the Notes for teachers section.

The materials will help pupils to:

- learn how important it is for us to throw away as little as possible, and when we do have to throw things away, to make sure they go to the proper place by putting them in a bin or taking them for recycling;
- explore the consequences of their own behaviour;
- identify and investigate local, national and global problems;
- suggest, explore and, as appropriate, test and implement solutions to problems;
- develop their ICT skills.

Going for Green and the Green Family

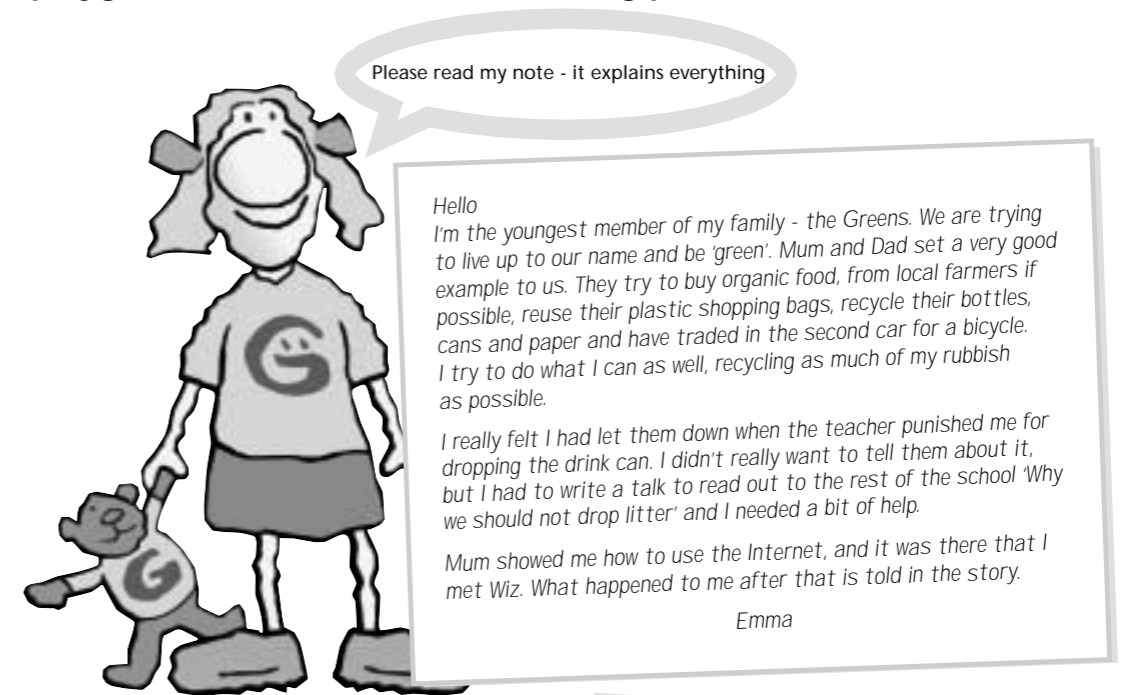
Going for Green developed the Green Family as part of its public awareness campaign on green issues. The campaign revolves around the Green Code Programme with its five themes:

- Cutting down on waste
- Saving energy and natural resources
- Travelling sensibly
- Looking after the local environment and encouraging biodiversity
- Preventing pollution

For more information about Going for Green and the Green Code Programme for Schools, see the section Other Sources of Information and Support.

The story so far

The reading book *Wiz's Wonderful Web* tells the story of what happened to Emma when she dropped an empty drink can in the playground at school. It is the starting point for these materials.



What do you think litter is?

- Litter refers to solid rubbish.
- A popular definition of litter is 'waste in the wrong place'.
- Used chewing gum on a pavement is litter.
- Apple cores, banana skins, etc. are biodegradable but would still count as litter if they were 'in the wrong place'.
- Dog faeces in public places are litter and can be a health hazard.

Which of the following would you say was litter if you found them in the playground?

Sweet wrapper; crisp packet; apple core; used chewing gum; drink can; tape from a video or sound cassette; banana skin; dog dirt; glass bottle; plastic bottle; paper bag.

Answer: they are all litter.

Using the materials

The Story Book

Over the page are some questions arising out of the story. They are intended to:

- provide opportunities for raising related citizenship issues;
- test pupils' comprehension of the story;
- provide ideal opportunities for pupils to explore their perceptions of litter and waste issues;
- encourage pupils to think about what environmental quality means to them;
- encourage positive environmental and sustainable actions.

Information is provided below each question to help follow up the story.

Why was Emma punished?

For dropping her empty drink can on the ground.

Why do you think litter can be a fire hazard?

- A lot of litter is paper and it burns easily.
- If it is in a public space, a match or burning cigarette end may fall in it.
- Vandals often set fire to rubbish.

Why did the men not want to take the rubbish to the proper place?

To save money. This could lead to a wider discussion on why we have rules and why we sometimes break them.

Is it against the law to drop litter?

Yes. The maximum fine is £2500.

See the information sheet 'Litter and the law'.

What do you think the following words mean: repairing, reusing, and recycling?

The skip is full of things that could be repaired, reused or recycled. The children could be asked if their families use the local recycling collection schemes. It could be the basis of a survey on what families do with their waste so that the children can practise collecting, interpreting and presenting data. Children could also find out what happens to the school's rubbish and think about how the school could use fewer resources.

How clean do you think our school is? Is it very clean, clean enough or dirty?

- This could open up opportunities for surveys of where any litter in the school and the grounds is found, what types of litter there are and how clean the pupils want the school and their own surroundings to be.
- The information sheet 'Litter and the law' shows how clean a school should be.
- This question could also lead to further discussion on how children feel about places with and without litter and the anti-social nature of the behaviour of littering, such as the nuisance it causes people. What other types of anti-social behaviour are there?

Do you know what the school rules are about dropping litter?

- This can help remind pupils of the rules.
- Later, pupils could work in small groups to put them in order of priority, giving reasons for their choice.
- There could be a wider discussion of rules, their uses and why they are changed from time to time.

Why is it not always best to put your rubbish in a bin?

- Rubbish from bins and skips does not usually get recycled.
- Taking your rubbish home allows you to separate paper, bottles, cans and food waste and recycle them (food via the compost heap).

What is a fine? Should someone be fined more for dumping an old tyre in a stream than someone who drops a crisp packet on the pavement?

Children can think about the potential damage of putting different types of waste in different 'wrong places'. Children can also be asked to think about who should be responsible for clearing up litter and waste. Usually it is the local council.

What do YOU do to keep your surroundings pleasant?

- This can help pupils think about the positive things they do and they can then be shown how they can do even more. What do they feel like when they do something to improve the environment?
- Pupils could be asked if they notice what places look like; is it tidy or untidy?
- It is important for the teachers and the school as a whole to set a good example.
- Tell the children what you do, or at least try to do, to reduce waste and litter.



Pupil Activities

Wiz Sheet

This puzzle sheet can be used by the pupils to follow up classwork either in the classroom or at home. Some answers to the questions are provided below.

The Spot the differences activity could be the starting point for pupils to think about an environment quality index. They could assess the school environment and the local environment, drawing a map to show how their perceived quality of it changes from place to place. They could be asked to suggest ways that THEY could improve their environment and what OTHERS need to do to improve it.

Answers

Question 1 - We should not drop litter because:

- A:**
- It can harm wildlife and domestic animals
 - It is a fire hazard
 - It is a waste of valuable resources
 - It looks unsightly
 - It is a nuisance, e.g. dog faeces

Question 2 - What do you do with the empty can?

A: d) Take it home and recycle it.

Question 3 - Where do you put your gum?

A: b) Wrap it and put it in the bin.

Question 4 - Where do you put your crisp packet?

A: a) Put it in the nearest bin.

Question 5 - The correct sequence of the phrases is:

- A:**
- Peel potatoes
 - Put peelings on compost heap
 - Waste vegetable matter rots down into compost
 - Mix compost into soil
 - Plant plants
 - Plants grow better

Question 6 - What waste goes in which bins?

- A:** c) The cone-shaped bins are for different coloured glass bottles and jars.
d) The container with slits is for paper.

Environmental Quality Index

The school could be divided into areas and each area scored on a scale 1-9. One could be very good, nine very poor. Before or afterwards, the pupils could think of criteria by which to assess an area's environmental quality.

Criteria might include:

- | | |
|--------------------------------------|--|
| a) How attractive it looks | e) How quiet or noisy it is |
| b) How much litter is found | f) How child-friendly it is |
| c) How safe the place feels | g) How much vandalism there is |
| d) How well cared for the area looks | h) The amount of waste stuck on pavements and floors |

Information could be recorded and compared at intervals to see if the environment is getting better or worse.

The Worksheets

There are very many resources on litter and waste. Many of them have pupil worksheets. A couple of examples only are included in the pack. Other Sources of Information and Support suggests a number of other resources and where to get them from.

Information Sheets

These sheets provide further background information for teachers to help plan lessons and answer questions. You may think some of the sheets are suitable for older pupils to use directly. The titles are:

- | | | |
|-----------------------|-------------------------------|--------------------------|
| • Litter and the law | • Litter, waste and pollution | • Gum disposal |
| • Waste and resources | • Litter, waste and animals | • Some facts about waste |



Support for the curriculum

The materials have been developed to support the teaching of PSHE and citizenship.

They are best used as part of a school approach that encourages active citizenship, - i.e. pupils have an opportunity to experience and practise participatory democracy as well as learn about it. This table gives a few examples of other areas of the curriculum that can be supported by litter and waste topics.

Key concept	Knowledge and understanding required	Subject area
Litter is unsightly and dropping it is anti-social	Exploration of aesthetics, what one likes and dislikes about the environment	Art and Design, Geography, Environmental Studies
Litter can harm domestic and wild animals	Natural cycles and biodegradation, Food chains, Toxicity	Science, Biological Systems
Litter is a waste of resources	Renewable and non-renewable resources, Recycling	Science, Geography, Environmental Studies
Any materials taken from the earth should not exceed the environment's capacity to disperse, absorb, recycle or otherwise neutralise their harmful effects to humans and the environment	Natural cycles, capacity of environments to process waste products, life processes, life cycle analysis of products and services, impact of pollution	Science, Geography, Environmental Studies
There must be equity for future generations	Renewable and non-renewable resources, knowledge of ethics and justice	Religious Knowledge
Structures and institutions should promote stewardship and efficient use of resources	Systems for organising human affairs, e.g. democratic systems, commercial systems, educational systems, NGOs, international conventions and agreements	Geography, History, Environmental Studies



Other sources of information and support

Main citizenship organisations

Centre for Citizenship Studies in Education

School of Education, University of Leicester, 21 University Road, Leicester LE1 7RF Tel: 0116 252 3681

The Centre exists to promote research and education for citizenship, human rights and the teaching of democracy in schools. It is committed to developing more democratic and inclusive approaches to education, based on the principles of freedom, equality, justice and peace. It aims to support schools as model communities, in which there is respect for the individual and for difference, and for equality of rights. It aims to develop and disseminate good practice in this field.

Full details of its resources and work are found on the website <http://www.globaloutlook.org.uk>

The Citizenship Foundation

15 St Swithin's Lane, London EC4N 8AL Tel: 020 7929 3344

The Citizenship Foundation is an independent charity funded by grants from charities, business, commerce, government and private donors. Founded in 1989, it encourages understanding of:

- the rights and duties of citizenship;
- the workings of the political, social, and legal systems and the democratic process;
- the provision of experiences which enable citizens to become caring, confident and effective members of society.

In particular, the Foundation seeks ways of enriching provision for those for whom the quality of citizenship would otherwise be poor. For detailed information go to the website at <http://www.citfou.org.uk>

Council for Education in World Citizenship (CEWC)

15 St Swithin's Lane, London EC4N 8AL Tel: 020 7929 5090

CEWC is an independent organisation that helps young people understand and confront global issues and challenges. Founded in 1939 to promote education for international understanding, CEWC prepares people for their rights and responsibilities as active citizens of our interdependent and multicultural world. It works

with member schools through publications, activities, information, advice and support.

For more information and details of publications see the website <http://www.cewc.org.uk>

Institute for Citizenship

62 Marylebone High Street, London W1M 3AF
Tel: 020 7935 4777

The Institute is an independent non-partisan charitable trust. Its aim is to promote informed, active citizenship and greater participation in democracy and society. It is developing support materials and training for teachers in citizenship. Projects they are working on include two guidance books for teachers at Key Stages 1 and 2, a multi-national project and in-service training.

For up-to-date information about its activities go to the website at <http://www.citizen.org.uk>



Other relevant organisations

Contact your local authority to find out what waste education programmes and materials they can offer. They will be able to tell you how to contact the local company that disposes of the local household waste.

Aluminium Packaging Recycling Organisation (ALUPRO)

Information Office, 1 Bank Square, Bidford on Avon, Warwickshire B50 4NL Tel: 08457 227722

At the website <http://www.alucan.org.uk> you can order free information about aluminium can and foil recycling. The website has an education section with ideas for using aluminium and can recycling in several subject areas. There are also details of how to run recycling schemes that can earn the school money. For information about recycling aluminium foil go to: <http://www.alufoil.co.uk>

Centre for Alternative Technology (CAT)

Machynlleth, Powys SY20 9AZ Tel: 01654 703743

Produces education materials, but most valuable is an education visit to see sustainable development in action - waste is a useful resource at CAT. For ideas and more information visit the website at <http://www.cat.org.uk>

Eco-Schools (managed in UK by Tidy Britain Group)

Elizabeth House, The Pier, Wigan WN3 4EX Tel: 01942 824620

Eco-Schools is a Europe-wide project designed to encourage and acknowledge whole-school action for the environment. Eco-Schools offers a well-defined, controllable way for you to take environmental issues from the curriculum and apply them to the day-to-day running of your school. This process will help your pupils recognise the importance of environmental issues and take them more seriously in their personal and home lives. Pupil involvement in decision-making regarding action to be undertaken is at the core of the Eco-Schools programme. Eco-Schools is both a programme and an award scheme. Any school using the guidelines given can adopt the programme. The award will be given to schools that complete all the essential elements of the Eco-Schools programme. Eco-Schools is designed to make environmental awareness and action an intrinsic part of the life and ethos of a school for all its pupils. It does not aim to reward specific environmental

improvement projects such as making a pond or developing a wildlife area. It is a flexible programme and different schools will find different routes to achieving Eco-Schools status. Visit the website at <http://www.eco-schools.org.uk> to find out more, see examples of what schools have done and link to other useful sites.

Going for Green

Elizabeth House, The Pier, Wigan WN3 4EX Tel: 01942 612621.

Going for Green is an independent national charity dedicated to helping the public to understand how individual actions can have a positive effect on the future environment. Reinforcing the idea of sustainable development, it encourages people to take small individual actions. The Green Code Programme for Schools is an ICT based resource for schools containing CD ROM materials, teacher manuals and worksheets for pupils. One copy available to schools free of charge on request. There are separate packs for Primary, Junior and Secondary schools. Visit the Green Code website at <http://www.greencode.org.uk> for teaching ideas and the Going for Green website at <http://www.gfg.iclnet.co.uk> for ideas on how simple actions can make a difference.



Royal Society for the Prevention of Cruelty to Animals (RSPCA)

Causeway, Horsham, West Sussex RH12 1HG Tel: 01403 264181

RSPCA Education encourages and supports animal welfare education for students, teachers and youth organisations across England and Wales. The Education Department produces resources for teachers and children. There are regional education officers who can arrange for a Schools Liaison Officer to come to a school to give a talk on animal issues. For more information and a Kids' Page full of interesting facts and things to do, visit their website at <http://www.rspca.org.uk>

Scottish Society for the Prevention of Cruelty to Animals (SSPCA)

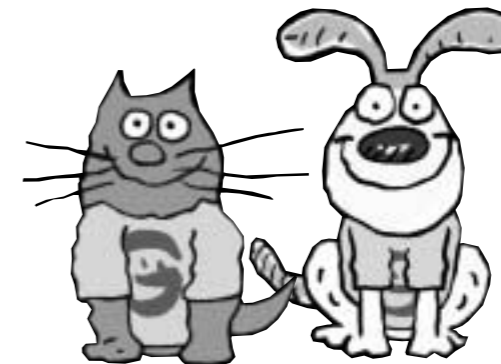
Braehead Mains, 603 Queensferry Road, Edinburgh EH4 6EA Tel: 0131 339 0222

SSPCA covers the whole of Scotland and has a variety of education materials. It is also possible to arrange for school visits by education officers. All the information can be found on their website at <http://www.scottishspca.org>

Tidy Britain Group

Elizabeth House, The Pier, Wigan WN3 4EX Tel: 01942 824620

Tidy Britain Group is a national charity campaigning to create litter free, high quality local environments. It works closely with councils, volunteers and businesses. It carries out surveys to see how clean Britain is, and awards those who are helping to keep the nation tidy. Tidy Britain Group has nine regional offices in England. It also runs Keep Scotland Beautiful and the Keep Wales Tidy and Tidy Northern Ireland campaigns. Visit the website at <http://www.tidybritain.org.uk> for more information.



Other national offices:

Tidy Northern Ireland (contact the Wigan office)

Keep Wales Tidy Campaign

33/35 Cathedral Road, Cardiff, South Glamorgan CF11 9HB Tel: 029 2025 6767
and 2 Slate Quay, Caernarfon, Gwynedd LL55 2PB Tel 01286 674081

Keep Scotland Beautiful

7 Melville Terrace, Stirling FK8 2ND Tel: 01786 471333

Ulster SPCA

P O Box 103, Belfast BT6 8US Tel: 02820 742788

The Ulster Society for the Prevention of Cruelty to Animals offers a full education service through its Education Department. The website is <http://www.uspca.co.uk>

Waste Watch

Europa House, Ground Floor, 13-17 Ironmonger Row, London EC1V 3QG Tel: 020 7253 6266

Waste Watch is the national organisation that educates, informs and raises awareness on waste reduction, reuse and recycling. Waste Watch provides useful information and materials for use in schools. Their website has a special education section providing full details of the education resources and the School Waste Action Club. The Kids' Page, as well as having lots of things for children to do, provides good ideas and information for teachers too. Visit the website at <http://www.wastewatch.org.uk>



Resources

This list represents a very small selection of the materials available on litter, waste and recycling. Visit the websites listed for details of other materials. Your local authority will also be able to supply information relevant to your area. Many also have special teaching packs.

The National Grid for Learning

The National Grid for Learning is a collection of resources brought together by the UK Government to help raise standards in education and to support lifelong learning. Materials are being added constantly, so it is worth looking at it from time to time. Its website address is <http://www.ngfl.gov.uk>

The Dustbin Pack & Wise Up To Waste, Waste Watch

Free education packs complete with activity cards and teacher handbooks. Visit the website at <http://www.wastewatch.org.uk>

Litter and Waste: Towards a Sustainable Lifestyle, Tidy Britain Group, 1996

One in a series of booklets to support Eco-Schools, with information for teachers and worksheets for pupils aged 7-11.

The website address is <http://www.eco-schools.org.uk>

Halton Junior Citizenship Project, Institute for Citizenship, 2000

For Key Stage 2. The project has been developed and piloted throughout the Borough of Halton. For participating schools, each student in Year Six receives a project workbook filled with pictures, facts and activities about how a student in Halton is connected to his or her local community, the council, their MP, and their MEPs. A comprehensive teacher pack accompanies the workbook. Note: Citizenship at Key Stage 2 is available from Nelson Thornes publishers. More details on the website <http://www.citizen.org.uk>

Infant Citizenship Project, Institute for Citizenship, 2000

For Key Stage 1. The resource consists of a large book of discussion photographs (A3) showing young children in citizenship activities, such as helping, explaining a different culture and caring for the environment. The accompanying Teachers' Guide includes a wealth of activities based on the photographs, which teachers can use with their own classes. Note: Citizenship at Key Stage 1 is available from Nelson Thornes publishers. More details on the website <http://www.citizen.org.uk>

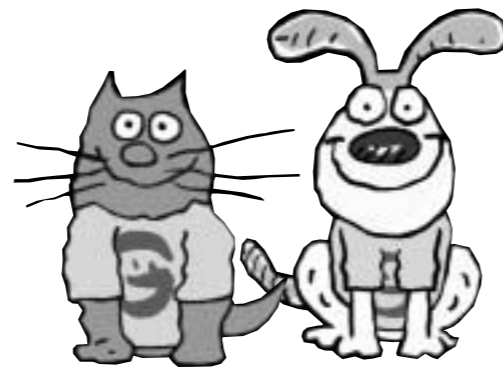
Ollie Recycles

A CD specifically designed for the primary school curriculum and featuring the adventures of a 10 year old cartoon character, Ollie, whose local park is threatened by a proposed landfill site. Through the use of highly innovative animation, games and puzzles, the CD-ROM teaches five to 11 year olds about the 3 Rs - that's how to reduce, reuse and recycle waste material from school and home, rather than send it to landfill. Ollie Recycles is free to all schools in the UK.

Order from the Ollie Recycles website at <http://www.ollierecycles.com> and open the "shop" section to fill in a request form.

Rubbish Kills, RSPCA

A poster showing how animals can be harmed by rubbish that is not disposed of properly. The poster gives advice on how to make sure your rubbish cannot harm animals.



Waste Minimisation and Recovery: Towards Sustainable Lifestyles, Tidy Britain Group, 1997

One in a series of booklets to support Eco-Schools, it provides information for teachers and includes worksheets for pupils aged 7-11.

Information sheet 1 - Litter and the law "It's against the law to drop litter."

You might find it hard to believe when you visit some places, but there are laws against dropping litter. There are also laws that say who has to tidy it up and how quickly. There is even a law allowing anyone to inform the council where there is a lot of litter and making sure that the council cleans it up. It's all in the Environmental Protection Act 1990.

The council is responsible for keeping public land clean. Elsewhere, we are all responsible for keeping our patch tidy - including our school. If people complain about the litter at your school, then it has to be tidied up if you want to avoid getting into trouble. Of course, it is better to prevent places from getting untidy in the first place.

There is a Government Code of Practice on Litter and Refuse. This states how clean an area should be and if it gets any dirtier, how quickly it has to be cleaned up. It can be viewed in full at <http://www.detr.gov.uk/environment/airq/nnp/litter/part1.htm>

There are four grades of cleanliness that are shown in the photographs below.

A school should never be less than Grade B. If it goes to Grade C or D the school has 24 hours to clean it up.

Failure to do so can mean a fine of £2500.

"It's against the law to drop litter"



Grade A = Free of litter



Grade B = Not much litter apart from a few small items



Grade C = Quite a lot of litter with small build ups



Grade D = A lot of litter with big build ups



Information sheet 2 - Litter, waste and animals

"Rubbish can hurt animals."

The best way to prevent animals from being harmed by litter and other rubbish is not to throw rubbish away in the first place.
Remember -

Reduce, Reuse,
Repair, Recycle,
Recover.

These are some of the ways the RSPCA has found how animals are harmed by rubbish and how you can prevent harming them.

Bottles

The sharp glass of broken bottles can injure animals. Even unbroken bottles can be dangerous to small animals that might get trapped inside.

TAKE BOTTLES AND JARS TO THE BOTTLE BANK.

Plastic bags

Animals can get their heads stuck in plastic bags when they go looking for something tasty inside.

SAVE YOUR BAGS TO USE AGAIN. IF THEY ARE DIRTY, TIE A KNOT IN THEM BEFORE PUTTING THEM IN THE BIN.

Lids on cans and cartons

Small animals can easily get trapped inside cans and cartons when the lid is still attached. It acts like a trap. The animals can push their way in, but it springs back to prevent them getting out.

REMOVE TOPS COMPLETELY. PUT CAN LIDS IN THE BOTTOM AND CRUSH THE CAN. THEN PUT IT IN A CAN BANK.

Can holders

Animals often get tangled up in the plastic rings holding multi-packs of cans together.

CUT UP CAN HOLDERS BEFORE PUTTING THEM IN THE BIN. RECYCLE THEM IF YOU CAN.

- Even rubbish you put in the bin can damage animals when it goes onto a rubbish dump. So tie up those bags, cut up those can holders and wrap up broken glass.

Balloons

Releasing balloons into the air is popular at fairs and other events. But what goes up must come down, and when balloons come down they are a threat to animals. Many dolphins, whales, turtles, fish and seabirds found in the waters of the North East Atlantic Ocean have balloons in their stomachs. This could be responsible for killing them.

DON'T BUY A BALLOON THAT IS TO BE RELEASED INTO THE AIR, EVEN IF IT IS BIODEGRADABLE.

Fishing litter

Animals can swallow hooks, weights and lines and get tangled up in old lines and nets. Litter from packed lunches and snacks can also injure animals.

TAKE ANY BROKEN LINES, OLD HOOKS, WEIGHTS, NETS AND OTHER RUBBISH HOME WITH YOU.

"Rubbish can hurt animals"



Information sheet 3 - Waste and resources

"Throwing things away is a waste of resources."

We throw away about 26 million tonnes of rubbish a year from our homes. This weighs as much as three and a half million double decker buses - long enough to form a queue around the world one and a half times.

We have to use the earth's resources, but we should try to use them as carefully as possible. We want there to be resources left for future generations.

The best policy is: **Reduce, Reuse, Repair, Recycle, Recover.**

The Government announced its new waste strategy for England and Wales in May 2000. It wants a national average of 17% of all household waste to be recycled by 2003. For more information look at the website:

<http://www.environment.detr.gov.uk/wastestrategy/cm4693/index.htm>

For waste plans in Scotland go to http://www.scotland.gov.uk/news/releases98_2/pr1639.htm

Reducing

- The easiest way to reduce waste is to avoid creating it in the first place.
- Try to avoid buying disposable goods such as paper plates, plastic cups, etc.
- When buying something look for products with the least packaging, or packaging that can be reused or recycled.

Reusing

- Many things we buy can be used time and time again. The plastic bag from the supermarket can be used until it is only fit for use as a waste bin liner. Cardboard boxes make excellent toys for children to play in (but take out any sharp metal staples first).
- It can be a good game devising ways of using waste materials.
- Charity shops will sell books, clothes, toys and other items you no longer need and the money they make goes to good causes.
- The milk bottle is an example of packaging that is used several times.



"Throwing things away is a waste of resources"

Repairing

- Repair items when possible rather than throwing them away and buying something new.

Recycling

- Most waste can actually be recycled.
- Waste peelings, cabbage leaves and other vegetable matter can go on the compost heap with garden rubbish such as grass clippings. One third of the waste in our bins could be composted.
- Larger items of garden rubbish can often be taken to a recycling centre for composting.
- Glass, paper, metal, textiles and plastic make up much of the rest of our household rubbish, and with the exception of some plastics, can be recycled - in other words the resources can be used again.

Recovery

- Once any remaining waste is in the dustbin - there shouldn't be much left - it is the responsibility of the local authority to dispose of it.
- Most waste goes into a landfill. These are often holes left by quarries. Sometimes the gas collected from the rotting waste is collected and used as a fuel. However, there is a shortage of good holes to put rubbish into.
- Another option is to burn the rubbish and use the heat to generate electricity or heat buildings. Whatever ash remains can be put into one of those precious holes.



Information sheet 4 - Waste and pollution

“Pollution can harm us all.”

Pollution = the addition of any substance or form of energy at a rate greater than the environment can accommodate by dispersion, breakdown, recycling or storage in some harmless form - or, in simpler language, messing up the environment with our waste.

Pollution happens when we do not deal with our waste properly. The environment suffers and if the environment suffers, then eventually we suffer too because we are part of the environment. We need to breathe the air, drink the water and eat the food produced from the land or sea. If any of these are polluted, then we get back all those things we tried to get rid of. Put another way, “there is no such thing as a free lunch”. If we dispose of our rubbish carelessly,

then we will have to pay the consequences sooner or later. There are many different types of waste and many ways of treating them. The table below is an attempt to list different types of pollution and their causes and effects. The table is not intended to be comprehensive. Most processes depend on using energy from fossil fuels. Carbon dioxide is released into the atmosphere causing additional global warming.

The waste	The problem	The consequences	The solutions
General litter - paper, cans, glass, plastic	Visual pollution, hazardous	Unightly, fire hazard, a nuisance, dangerous to people and animals	Better enforcement of litter laws More bins Bins emptied more frequently Reusing or Recycling
Human waste - sewage	Water pollution	Contamination of drinking water, damage to wildlife in streams and rivers	Treatment of sewage before it is discharged into watercourses Using sewage sludge to improve the soil
Household rubbish - packaging, food, vegetable waste, chemicals	Land pollution	Landfill - top soil contamination when the site is closed and covered	Removal of top soil and sealing the site
	Air pollution	Landfill - methane from rotting rubbish can cause explosions, noise and dust Incineration - fumes can be dangerous to health or smelly	Collect and use as a fuel Compost vegetable matter Site away from residential areas Improve incineration technology
	Water pollution	Landfill - liquids in the rubbish and from decomposition seep out into local water supplies	Seal the landfill site and channel and collect liquids (known as leachates)
Industrial waste - toxic and hazardous substances, fumes from industrial processes	Air pollution	Fumes dangerous to health of plants and animals (including humans) Carbon dioxide emissions cause global warming Ozone destroyed in stratosphere causing increases in ultra-violet radiation	Use cleaner technologies Recover useful ingredients, e.g. sulphur Energy saving technologies and procedures Use alternative chemicals
	Water pollution	Leaks and spills getting into surface and underground water supplies	Better safety, e.g. building concrete banks around storage tanks Recover useful ingredients
	Land pollution	Land contaminated by waste from industrial processes	Various methods of land remediation depending on the type of pollution
Agricultural waste - fertilisers, sheep dip, pesticides, animal slurry, silage liquids	Water pollution	Chemicals washed into watercourses and water under the ground	Make safer chemicals Have better safety procedures on farms Collect liquid wastes and reprocess them Reduce the use of chemicals
Transport - exhaust fumes	Air pollution	Health hazards, global warming, damage to plants and other animals	Catalytic converters Clean engine technologies Drive less



“Pollution can harm us all”



Information sheet 5 - Some facts about waste.

- Paper and cardboard make up about one third of what we throw away. All of it could be recycled.
- The Government said that 25% of all household waste should be recycled by the year 2000. We recycle about one quarter of the glass and about 35% of the paper we use, but in other areas we have failed to reach the target.
- Every day 80 million food and drinks cans end up in a landfill (being buried) - that's one and a half per person. In a year, each person could fill a bath with the contents of these cans!
- Turning old aluminium cans into aluminium sheets that can be used to make new cans takes less than one tenth of the energy needed to make the sheet from bauxite (the ore from which aluminium is made).
- We only recycle about one third of the aluminium cans we buy.
- Every nine months we produce enough waste to fill Lake Windermere, the largest lake in the Lake District.
- We use over six billion glass bottles and jars each year - about 120 each.
- Each year food shops give away enough carrier bags to cover the whole of London with a layer of bags.
- On average a baby uses almost 6,000 nappies - they weigh as much as a family car.
- In the Netherlands all food and vegetable matter is collected separately from the rest of the rubbish. It is all composted.
- For every tonne of useful products made in the UK, we consume about 10 tonnes of other resources - raw materials and energy.

“Here are some surprising facts”



Information sheet 6 - Gum disposal¹

Over 20 million people enjoy chewing gum in the UK and did you know 9 out of 10 Dental Professionals recommend chewing sugar-free gum to their patients?* People chew gum for all sorts of reasons and here are a few of them - for enjoyment, for breath freshening, for dental and health benefits.

Some people are careless with their gum and drop it on to the ground instead of putting it in the bin. Litter is unsightly and is expensive to clean up.

Whether you have gum, a sweet wrapper, or a fizzy drink can - do the right thing and put it in the bin when you have finished with it.

"Used gum?
Wrap it and bin it"



Section 2 - Information Sheet 6



* British Dental Association statement reads "chewing sugar-free gum helps prevent tooth decay".
1. Information provided by Tidy Britain Group.

Wiz Sheet - a puzzle book for pupils written by Wiz and Emma



We have prepared a puzzle sheet for you. I hope you enjoy it. You can put your answers in the boxes and on the lines that are provided.



1. Wiz gave you many reasons why you should not drop litter. Write down three of them.

- a) _____
- b) _____
- c) _____

Put the letter of the answers you choose in the boxes.

2. You have just finished a can of drink in the playground. What do you do with it?

- 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

3. You have just finished chewing your gum. What do you do with it?

- a) leave it on the ground
- b) wrap it and put it in the bin
- c) take it home

4. You have just eaten a packet of crisps . What do you do with it?

- a) put it in the nearest bin
- b) take it home and save it for recycling
- c) leave it on the ground

5. Arrange the following phrases in the correct sequence or order.
The first one is given to get you started.

<i>plants grow better</i>	<i>peel potatoes</i>
<i>waste vegetable matter</i>	
<i>rots down into compost</i>	
<i>mix compost into the soil</i>	
<i>peel potatoes</i>	
<i>plant plants</i>	
<i>put peelings on to the compost heap</i>	

Section 3 - Wiz Sheets



6. WWW - Wiz's Waste Wordsquare

Try to find the following words in the word square. All the words are about litter and waste.

- litter
- rubbish
- can
- carton
- gum
- paper
- plastic
- food
- metal
- rotten
- bin
- compost
- tin
- tip
- bottle
- dropped
- recycle
- repair
- dump

C	I	T	S	A	L	P	A	F	O	O	D
C	I	L	C	O	M	P	O	S	T	B	R
N	L	D	I	E	F	C	A	N	G	H	O
O	A	N	M	T	L	K	A	D	U	M	P
P	T	B	O	T	T	L	E	R	J	I	P
R	E	C	Y	C	L	E	Q	U	T	R	E
E	M	S	T	U	A	F	R	R	U	O	D
P	I	E	W	Z	H	E	L	B	W	T	N
A	J	G	R	D	P	X	B	I	N	T	C
I	B	N	K	A	O	I	P	Y	F	E	M
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T	Y	A	L	H	S	H	K	D	J	F	G

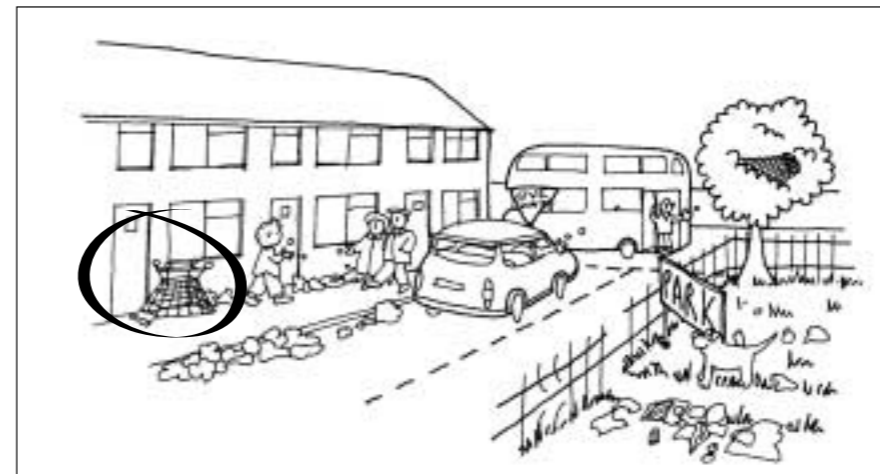
For the following words, write a definition (what the word means) in your own words, then use the word in a sentence.

What the word means	Your sentence
recycle	
reuse	
repair	
compost	
rotten	



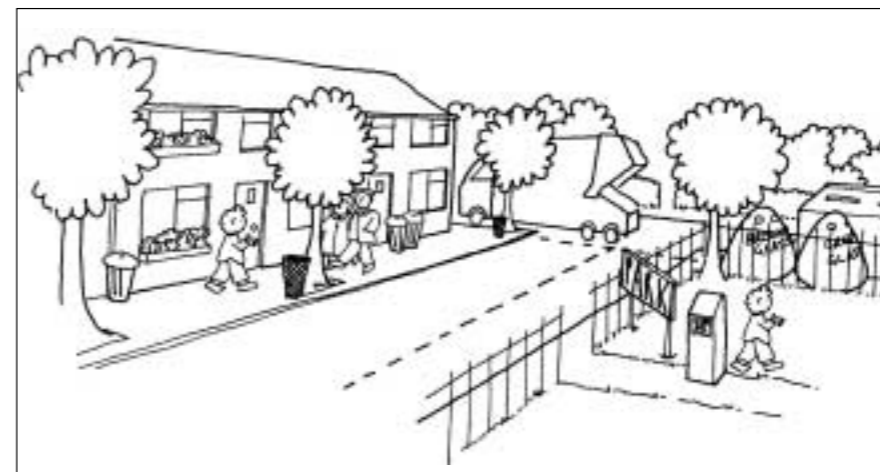
7. Spot the differences²

Look at the two pictures to help you to answer the questions below.



Street A

Example: Supermarket trolley has been taken away.



Street B

a) Draw in pencil around as many differences you can find between Street A and Street B, and by the side write what the difference is. An example is given to help you get started.

b) In which street do you think most people would like to live? Why?

c) What kind of waste do you think you put into the cone shaped bins by the park fence in Street B?

d) What kind of waste do you think you put into the container with slits in the top in Street B? It is behind the cone shaped bins.

e) Give two reasons for recycling waste.

- 1 _____
- 2 _____

2. Drawings from National Spring Clean for Schools 1997, Primary Worksheet 3.

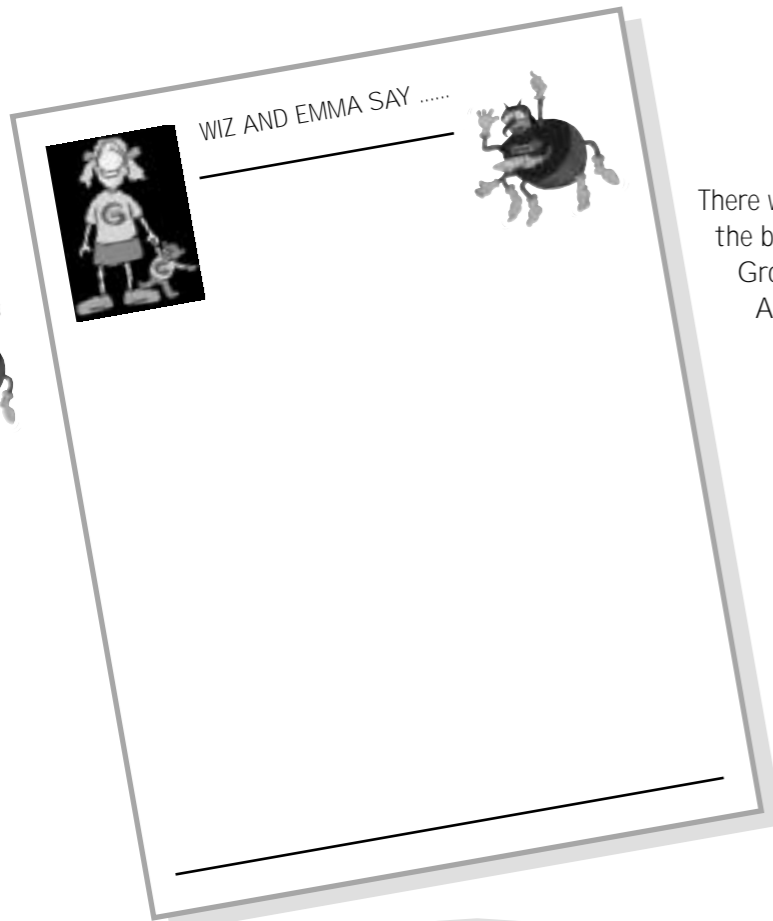


8. This is what I want to say

Ask your teacher what the school rules have to say about litter and rubbish. Then design (draw) a colour poster with the rules on it. The poster should have at the top:

WIZ AND EMMA SAY

(Then arrange the rules underneath and illustrate the poster with colour drawings.)



There will be an opportunity to post the best posters in the Tidy Britain Group online exhibition. Ask your teacher.

"I hope you enjoyed our puzzle sheets and learned a little about what to do with your rubbish - bye for now"



Litter surveys in school grounds (7-11 years)³

Materials needed:

- Chart paper
- Felt-tipped pens
- Plastic gloves
- A notebook
- A plan of the school grounds
- A plastic bag
- A spring balance
- Copies of the Worksheet (see following page)

Obtain or prepare a plan of the school grounds. A plan, scale 1:500, may be available from the Planning or Education Department of the local authority. Ensure the playground is not swept the evening before the survey. Surveys are best carried out first thing in the morning, after break and lunchtimes.

Record information in three ways:

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

Decide on the symbols for the survey key as a class exercise. The children can work on the survey in pairs or groups, with a different pair or group carrying out the exercise each day for several days. Compare the results and calculate the average per day, week and year.

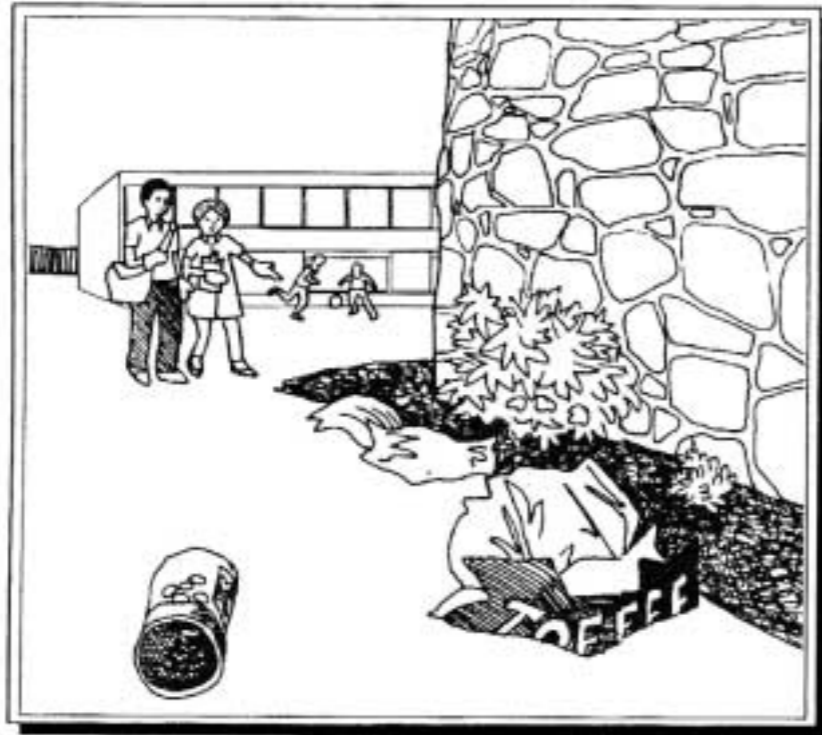
Discuss:

- Why and when people drop litter.
- How to prevent litter.
- Differences in the types of litter found inside and outside school.
- The areas and places around the school that always look clean and well-cared for.
- Sources of litter. Does the litter come from pupils, parents or evening visitors, or does it blow in from other areas?



Worksheet - Litter survey in school grounds

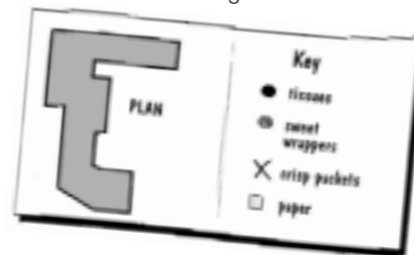
You can find out if litter is a problem in your school grounds. If it is, you can try to do something about it.



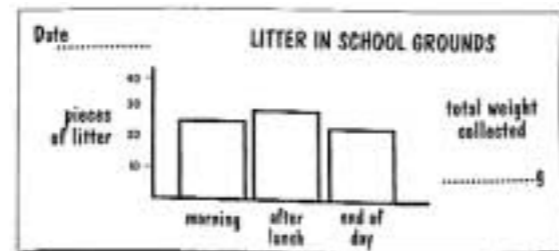
Take your gloves, collecting bag, plan and notebook out into the school grounds.

Each time you find a piece of litter:

- Put it in your collection bag.
- Mark where it was on the plan and draw a key.



Keep a tally of each piece of the rubbish and the collection time.

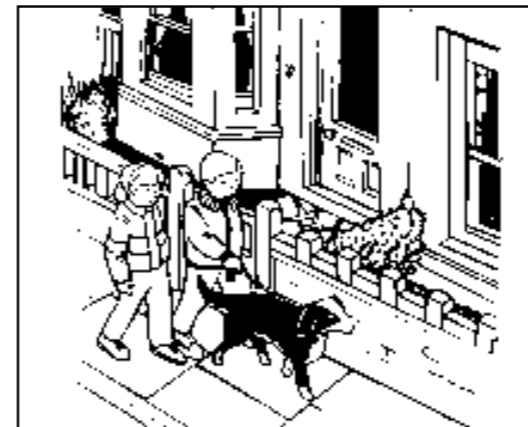
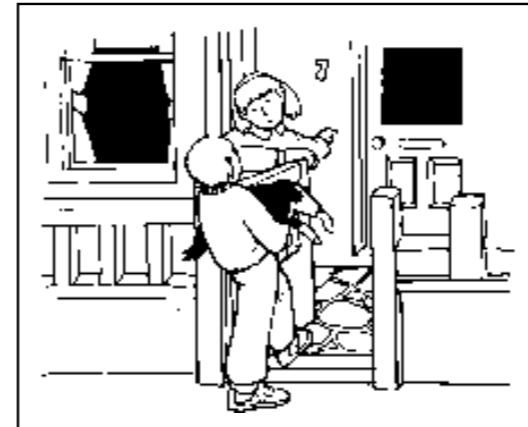


Put the rubbish in the bin and wash your hands!



Sam hurts his paw⁴

Cut out the pictures and arrange them in an order to tell a story. Stick them in the order you chose down the left hand edge of two pieces of paper. On the right side of the paper write a story to accompany the pictures.



4. Taken from Litter and Waste: towards a sustainable lifestyle, Tidy Britain Group 1996 as part of the Eco-Schools programme.



Wiz's Wonderful Web

WWW is a set of educational materials on litter and waste to support the teaching of personal and social education and active citizenship with 7-11 year olds.

The materials are part of a Tidy Britain Group three-year education programme that uses green issues to support the teaching of active citizenship.

The logo for 'Wiz's Wonderful Web' is written in a red, stylized font. It is enclosed within a hand-drawn spider web that is attached to a vertical line extending downwards from the text.

The written materials consist of:

- an A3 class reading book and an A5 individual reading book;
- support materials including: Notes for teachers about using the materials;
- other sources of information and ideas;
- teacher information sheets on aspects of litter and waste;
- a puzzle book for pupils;
- sample worksheets.

The materials will help pupils to:

- explore the consequences of their own behaviour;
- identify and investigate local, national and global problems;
- suggest, explore and as appropriate, test and implement solutions to problems;
- develop their ICT skills.

There is also an active citizenship area on the Tidy Britain Group website with interactive materials.



For further information please contact the Education Department, Tidy Britain Group, Elizabeth House, The Pier, Wigan WN3 4EX. Tel: 01942 824620 Fax: 01942 824778
E-mail: green.code@virgin.net Website: www.tidybritain.org.uk

