

recycle for Solihull Schools

Key Stage 1 & 2



Love Solihull is about you and other members of the local community becoming involved in making a real difference to our environment.

Recycling is a key theme of Love Solihull and with this in mind we have produced this resource to support primary schools and explore recycling in and beyond the school environment.

The pack has been designed for use by both teachers and pupils. It contains lesson ideas and practical suggestions about how you can raise awareness of recycling and reducing waste.

We hope that the resource will compliment the existing excellent practice taking place throughout the borough and encourage young people to develop a sense of responsibility for their environment.

If you would like support to deliver activities or organise a recycling event in your school or local community please contact the Love Solihull Team.

The Love Solihull Team

Solihull Council

Email: lovesolihull@solihull.gov.uk

Tweet: @LoveSolihull

Lesson Plans

What is waste? - Making a waste pizza

Reduce— Waste Free Lunch

Reduce— Packaging investigation

Reuse—What happened in WW2

Reuse— Running a swap shop

Recycle— Recycled Materials

Recycle—Make your own recycled paper

Useful links

Making a waste pizza**Key Questions**

What do you put into the bin?
What can be recycled or reused?
What happens to our rubbish?

Objectives

To learn what is thrown away,
where it goes and what can be
done to reduce it

Resources

Reduce, reuse, recycle, compost labels
Completed waste pizza for demonstration

Waste pizza slices representing the following percentages:

paper and card 12%,

plastic bottles, tubs, trays 7%,

clothes 4%,

glass 2%,

rubbish (nappies, carrier bags, dust (ask pupils to draw these items) 30%,

metals (tins and cans) 2%,

electrical and hazardous (batteries and paint) 1%,

garden waste 2% and food waste (40%)

*please note that these percentages are from what is found in the black rubbish bin in Solihull.

Materials for sticking on—paper, card, small plastic objects (buttons, lids etc.), foil,

Outline

Discuss what happens to rubbish when it goes in the bin. Why is this a problem? Some of our waste is reused or recycled, but in Solihull most of our waste is sent for Energy Recovery. (Energy Recovery is where the rubbish is burnt in a controlled environment, and energy is converted into electricity and heat which is fed into the local network).

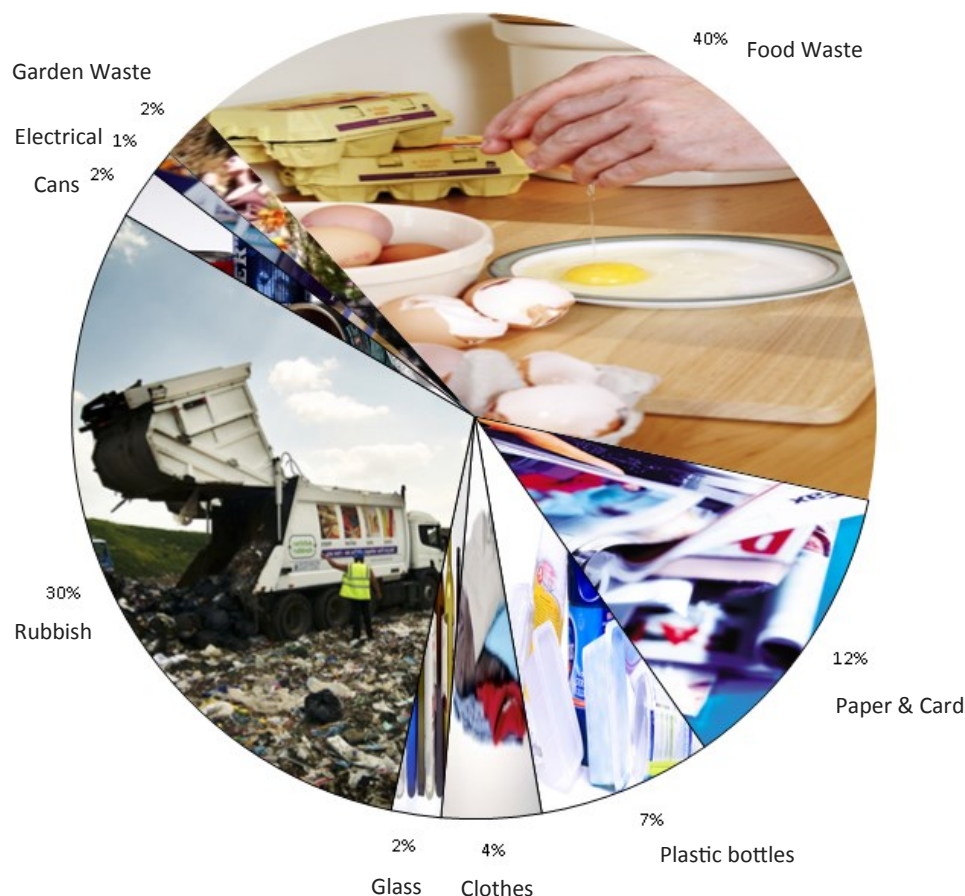
Explain the 3Rs and composting and the importance of these.

Explain that different materials are found in differing amounts in our bins. Show pre-made pizza to illustrate. Ask the pupils to name the materials.

Pupils are to decorate the class waste pizza to illustrate the types of materials we throw away. Distribute card pizza segment—1 for each group along with scraps of materials, glue, scissors etc.

When the groups have finished, gather the pupils together to form the completed pizza. Discuss the materials we have displayed—do they all need to be put into the rubbish bin? Can they be recycled or reused?

Example Pizza



Packaging investigation

| | |
|--|---|
| Key Questions Why is it better not to create waste? Do we need all this packaging? What can we do instead? | Objectives To learn what is waste prevention, how it can be done? |
|--|---|

| |
|--------------------------------------|
| Resources Poster paper |
|--------------------------------------|

Outline

Recycling our rubbish is fantastic and means we can save lots of energy and natural materials but can we do anything else? Waste minimisation/prevention is all about reducing the amount of rubbish we create and thinking about the way we buy, use and throw away.

There are many ways to prevent waste, from choosing waste free products in the supermarket, like loose fruit and vegetables, to shopping in charity shops and buying second hand goods.

Why not ask the pupils to either accompany their parents on a visit to the supermarket or check through the cupboards at home to survey 10 items and to fill out the survey form to note how many layers of packaging are used. (Example below—example sheet overleaf)

| Item | Number of layers |
|---------------|--------------------|
| Loaf of bread | 1—plastic wrapping |

When the surveys have been completed discuss which items had the least amount of packaging and which had the most. Split the class into smaller groups to design a poster showing how packaging could be reduced for the item which had been found to have the most packaging.

[illegible]

Lesson Title:**Key Stage: 1 or 2****Waste Free Lunch****Key Questions**

What do you normally have in your packed lunch?

What are leftovers?

Objectives

Look at the benefits of recycling

Introduce concepts of reducing, reusing, recycling

Identify materials that can be recycled

Understanding the importance of reducing food and packaging waste

Develop awareness of healthy eating into school lunches

Preparation

In groups, explore the journey of waste when it is thrown away compared to when it is recycled or composted. Discuss the advantages of items that can be reused, recycled or composted compared to incineration. For more information visit the 'Facts' on www.recyclenow.com to find out about waste and recycling processes—there are videos which can be used in the classrooms.

Gather examples of lunch waste from the class on a typical school day. Look at the leftovers and discuss what can be reused, recycled, composted and what needs to be thrown away.

As a class investigate how you can reduce food and packaging waste. Are there reusable or recyclable packaging alternatives? Could you choose food with less packaging or smaller/more appropriate portions?

Write a list of recommendations on how to prepare a waste-free lunch and give examples of items you could pack.

Decide on a date for the waste-free lunch, send a letter home to parents ideally two weeks notice and tell them how to participate in the activity (see example letter) You may want to include the list of recommendations/examples prepared by the students.

Outline—The Lunch

The waste-free lunch can be held as a class or school-wide event with either individuals or classes competing against each other.

On the day, pupils should sit in the normal dining areas. Give them time to enjoy their lunch, then allocate points for different types of leftover waste: Reusable waste—0 point, recyclable—1 point, compostable—1 point, waste that needs to be thrown away—2 points.

The pupil or class with the lowest score wins!

Alternatively rate pupils lunch leftovers with a traffic light system, handing out red, yellow or green stickers, depending on how waste-free their lunch is.

Attentive pupils should be able to achieve a zero-waste lunch.

Compare the results to the amount of waste produced from lunch on a typical school day.



Example of a non-waste free lunch



Example of waste-free lunch

Name of school

Address of school

Telephone number

To:

Date:

Can you help to prepare a waste-free packed lunch?

Dear Parent or Guardian,

We are learning how reducing the amount of waste we throw away can have a positive impact on the environment.

As part of this work we are holding a waste-free packed lunch competition on (insert day), (insert date). We hope as many students as possible are able to participate, including those who usually have school dinners.

The aim of the waste-free lunch is for each pupil to bring a packed lunch, which produces as little food and packaging waste as possible. Points will be awarded to the students or class with the least amount of rubbish that needs throwing away at the end. The students or class with the lowest number of points wins!

Ideas for creating a waste-free lunch include:

- use containers that can be used again e.g. Tupperware, a flask or an old ice cream box;
- avoid using disposable packaging and individually wrapped snacks; and
- if you can't reuse the packaging, ensure it is recyclable or compostable.

Do let me know if you have any questions about this project.

Best of luck!

(Teacher's name)

(Teacher's role)

Make do and mend—part 1**Key Questions**

What can we learn from the past?

What can be recycled or reused?

Objectives

To learn how materials were used in the 1940's and to compare how we handle our waste now

Resources for various activities

- Plastic bottles, tin cans or jam jars. Encourage the pupils to find various ways in which they could reuse these items e.g. as rain catchers or bird feeders. You could even run a mini competition for the best ideas.
- Old trousers, skirt or shorts. Turn these tired clothes into a bag. Asking parents with sewing skills to help assist. Split the class into smaller groups and ask them to design a new bag using the clothes provided. Assist them with cutting out of the design and sewing where needed. Bags can be accessorised using buttons or ribbons.

Background

During WW2 many items were rationed such as food, petrol and clothes. People repaired their worn shoes, patched trousers and unravelled old jumpers, using the wool to knit new ones. Worn sheets were cut in half and re-sewn along the better edges, socks were darned and new clothes created from scraps of old fabric. Today, the average household owns £4000 worth of clothes, 30% of which are unworn in the last 12 months. Quite a contrast to the 1940s. People don't tend to alter or mend clothing, choosing instead to send clothes to charity shops, put them out for recycling collection or even in the rubbish bin.

Make do and swap —part 2**Key Questions**

Do I still use this toy/book?

Objectives

To learn how to divert unwanted items from being thrown away.

Background

There are many ways to reuse clothes, shoes and toys why not hold a swapping event? Swapping or swap shops can promote reuse across the community. During the swap you should be able to take something away even if you haven't brought anything along.

What can be swapped?

Any unwanted items, that are in good condition can be swapped. Some examples include household goods, clean clothes, sports equipment, books, tools and musical instruments. You may want to tailor your swap to just books and toys.

What cannot be swapped?

These are just some examples of items that cannot be swapped; faulty items, dirty clothing, underwear, electrical equipment, business waste, animals and any other dangerous items.

Running your own event***Step 1 – Planning***

Allow plenty of time to make all the arrangements from producing the publicity to finding a venue. Sharing the responsibilities – make sure there is a team of you to help run your event. Why not ask each class to design a poster.

Step 2 – Venue

Before deciding on your venue, you will need to choose who you would like to attract – will the event be open to the whole community or school or is it just for a class?

Step 3 – Staff

The event will be a hive of activity and you will need people to assist in you in making your event a success from doing publicity, setting up the venue, meet and greet, sorting items, counting attendees, sorting any leftovers, clearing up and removing signage. Why not take some photographs of event?

Step 4 – Publicity

If you want people to attend, you will need to publicise your event widely. Why not advertise in the school newsletter.

Let us know about your event, we may be able to assist with posters and publicity. Contact us at lovesolihull@solihull.gov.uk

Step 5 – Added Extras

If possible offer refreshments, this may attract more people. Make sure any volunteers at your event are given a break and a refreshments. Why not add some background music to create a good atmosphere and inviting other groups to have displays – this could add to your event.

Step 6 – Monitoring the success

To find out how well your event has gone, why not count the number of people who attended. You may also want to find out how much waste your event has diverted from being thrown away. This will require some kitchen scales/hanging scales to weigh items.

Step 7 – Any leftovers?

Try to minimise any leftovers, and make sure you know what you can do with them if there are any left over. Could they be stored for a future event or taken to a charity shop.

It may be worth getting a local charity shop on board during the planning stages as they may be able to assist in taking any leftover stock.

It's really important to specify that type of items can and cannot be brought to the event. This will help minimise having to deal with unsuitable items. For example faulty items or electrical items.

Holding a smaller event

Hosting a smaller event with friends can be fun. Maybe you could choose a theme such as books, children's clothes and toys or even clothes.

Disclaimer

Persons taking part in the swap shop do so at their own risk. Solihull Council accepts no responsibility for items swapped and gives no warranty as to the condition, suitability or background of any of the items being swapped. Please take all reasonable measure to check the condition, suitability and background of any item being swapped for your own protection. Solihull Council accepts no liability for any claim or loss resulting from any transaction taking place at the swapping event/swap shop.

We recommend that a sign displaying similar information replacing Solihull Council's details with that of your own organization is displayed clearly at your event.



Lesson Title:
Recycled Materials

Key Stage: 1 or 2

Key Questions

What is recycling?

Why should we recycle?

Objectives

To identify different materials and what they can be made into

To learn that recycling sometimes changes the properties of a material.

To learn that making items from raw materials can damage the environment.

Resources

Selection of recycled products (can be pictures or photographs)

Part processed products (such as glass cullet—again can be pictures or photographs)

Picture of landfill

Materials that can be recycled locally

Juice carton or magazine per pupil

Outline

Ask the pupils to describe the term 'recycle'. What can they recycle? Show the pupils a picture of landfill and describe the environmental impact. Why is it important to recycle? Discuss the energy, time and materials savings and the impact on the environment of mining for raw materials.

Show the pupils what can be recycled locally (what can you recycle at home and at school) and what those things are turned into. Let them look at a range of recycled items and discuss in pairs or small groups what they are, what they have been created from. How had recycling changed the original item? Share ideas with the class.

Finish the session by transforming a magazine page into an envelope.

Lesson Title: Make your own recycled paper

Key Stage: 1 or 2

Key Questions

What is paper made of?

Objectives

To learn how to make your own

Resources

A food processor or blender

An iron

An old wire hanger

An old pair of tights

Newspaper or other paper torn into 2-3 inch squares

White glue

Water

An insect screen or strainer (optional)

Food colouring (optional)

A big sink or tub filled with 4 inches of water

* Please note that this can be a messy activity

Outline

Make a frame out of the coat hanger. You'll need a frame for each piece of paper you intend to make. Take one leg of the tights and stretch it over the frame. Make sure it is tight and flat.

Put a handful of torn up paper and some water into the food processor or blender until it becomes mushy. Keep adding paper and water until you have a big grey blob. Keep adding water to keep the mixture smooth and all the paper is used up. Put two tablespoons of white glue in the sink water/tub and add all of the paper pulp you just made. Mix well with your hands.

Scoop the frame to the bottom of the sink/tub, then lift slowly. Let the water drain out for about a minute. Keep on making paper until you have used up all the pulp. Hang the frames on a clothesline or put them out in the sun to dry. Wait until completely dry before peeling off.

Use the iron on the hottest setting to steam out your paper. Then its ready to use.

Useful Links

Recycle Now have an array of useful information, tips and facts which can be incorporated into lessons. <http://www.recyclenow.com/>

Alongside their website they also have a range of videos on YouTube which can be used. <https://www.youtube.com/user/RecycleNowCampaign>

Recycle More, have a zones for school and at home which has some useful resources. <http://www.recycle-more.co.uk/cp6.php>

BBC also have useful resources

<http://www.bbc.co.uk/education/topics/zfhp34j/resources/1>

The following link is for a directory of various other websites, resources, games and activities.

http://www.reducereuserecycle.co.uk/greendirectory/kids_green_sites.php

Outlined below are some other useful links

<http://www.wastebuster.co.uk/teachers-bin/resources/video-library/play/videos-linked-to-lesson-plans-and-activities/246/KS1-Episode-2-Paper-Recycling>

<http://www.reallyrubbishcampaign.co.uk/primary/teachers/english/index.html>

<http://www.twinkl.co.uk/resources/eco-recycling-environment>



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