

Lesson Plan 3- What Can We Recycle?



Objective

To teach pupils that different materials have different properties, which can be used for a variety of purposes. Pupils will record observations about the different materials using their senses

Activity

Feeling session and packaging design

Curriculum links

Curriculum Links Key Stage 1 Design & Technology

Pupils should be taught to:

2b) Explore the sensory qualities of materials

QCA Links Key Stages 1 & 2 Science

Unit 1C – Sorting & using materials

Unit 2D – Grouping & changing materials

Geography

Unit 8 – Improving the environment

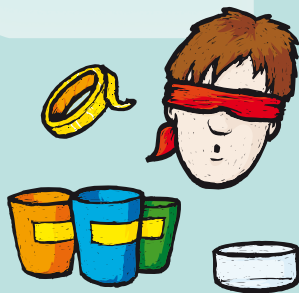
PRACTICAL ACTIVITY

Planning required for activity





A variety of fruit and vegetables, some peelings, wet tea bags, and (safe) packaging objects should be brought into class. These items should be of recyclable, non-recyclable and compostable materials

Apparatus Required

- Blindfold (optional)
- Container/sack/bag for all the materials
- Tape – this is required to put over sharp edges of cans to prevent injuries
- 3 Bins -
 - 1 for recyclable materials
 - 1 for non-recyclable materials
 - 1 for compostable materials



Activity Procedure

- 1) Introduce the activity to the children. The activity will help children to differentiate between recyclable, compostable and non-recyclable materials by using their senses. Advise them that they will each be taking it in turns to shut their eyes/be blindfolded. Each child in turn should put their arm into the sack/container and retrieve an item 
- 3) They then have to guess what the item is by touch, scent and listening 
- 4) The blindfold is then removed and the pupil is asked to place the item in the appropriate bin: 'recyclable', 'non-recyclable' or 'compostable'. Make sure that the children are aware of what these terms mean, definitions are given at the end of this section 
- 5) Once all of the items in the sacks have been segregated the contents of each bin should be examined and discussed. Give some examples of wasteful packaging: Look at crisp packets (the amount of room in a packet); individually wrapped pieces of fruit e.g. bananas 



Here are some suggested questions to stimulate a debate in the class:

- Is there another way we could deal with the rubbish?
- Are there other ways we could use the materials?
- Are there ways in which we could reduce the amount of rubbish we make?
- Why is it important that we reduce the amount of rubbish we throw away?

Supporting Information

Definitions

Reduce – What does it mean to reduce our waste?

- We can reduce the amount of rubbish we produce by thinking about the choices we

make when we buy things. Purchasing goods without packaging when you go shopping (e.g. loose vegetables and fruit) can reduce the amount of rubbish left after the goods have been used

- When buying goods used frequently, purchase them in bulk as this will mean less packaging
- Buy goods that will last longer and therefore need to be replaced less frequently e.g. low energy light bulbs
- Buy refills rather than a whole new product, or purchase concentrated products
- You can stop unwanted mail by contacting the Mailing Preference Service, DMA House, 70 Margaret Street, London, W1 8SS. Telephone number 0207 291 3310, or visit their website at www.mpsonline.org.uk. They will ensure that your name is not passed onto company mailing lists

Reuse – Why should we reuse things? How can we reuse things?

- Rather than continually purchasing new products, we can repeatedly use the ones we have. This helps to reduce the waste we produce and lessens the impact we have on the environment by decreasing the demand on resources
- When going shopping take old plastic bags or sturdy reusable bags rather than getting new plastic bags each time you visit
- Rather than buying single use batteries, use rechargeable batteries
- Clothes that you no longer wear can be donated to charity shops where they are purchased and worn again

Leicestershire County Council operates a Schools Textile Recycling Scheme, which collects clothing and toys from schools twice a year. Schools are paid for the textiles collected. If you are interested in joining the scheme please contact the recycling team on Tel 0116 265 8385.

- Many items can be donated to charity shops such as furniture, crockery, books and some electrical goods
- Buying milk from your milkman means that you use glass bottles that can be reused rather than the plastic milk bottles from supermarkets
- When bringing packed lunch into school use plastic storage containers for sandwiches instead of aluminium foil or cling film

Recycling – What do we mean by recycling? What can we recycle? Why should we recycle?

- Recycling is the process where the material of a waste product is used to make a new product. These waste products might be used to make the same new product again e.g. recycled cans used to make new cans, or they could be used to manufacture an entirely different item, e.g. 25 plastic PET bottles used to make a fleece jacket
- We can recycle many materials including: aluminium cans, aluminium foil, steel cans, plastic bottles, paper and cardboard, glass bottles, wood, mobile phones, printer cartridges, textiles and engine oil. All of these materials can be recycled at Recycling and Household Waste Sites in Leicestershire
- Recycling reduces the need for new materials thereby conserving resources and helping to protect the environment
- Recycling saves energy because it normally takes more energy to make something from a raw product than it does to recycle the material
- Purchasing recycled materials encourages manufacturers to use recycled materials in their goods and helps to complete the 'recycling loop'. This is a cyclical process that is represented by the 3 arrows going round in a triangle as can be seen in the background to the page. This symbolises the dependence of the different stages of the loop on each other and the importance of each stage in the recycling process. The first arrow relates to collection, it is at this point the item for recycling is collected from the kerbside box or bring bank. The second arrow represents remanufacture, this is when the item has been used either to make a new version of the same product or has been used to produce a different item.

The third arrow symbolises the purchase of products made from recycled goods thereby completing the 'recycling loop'. It is essential that there is a market for the recycled goods or there would be no point recycling.

- Examples of recycled goods that can be purchased include: fleece jackets, pencil cases (made out of rubber tyres), rulers (computer printers), pens (computer printers), pencils (vending cups), garden furniture (plastic bottles) and road bollards (plastic bottles). Of course there are also the obvious products such as recycled paper, recycled cans and recycled glass bottles

Composting – What is composting?

What can be composted?

- Compost is the result of the break down of organic matter. Organic matter is anything that was once living i.e. animals and plants. Compost is usually made from plants and vegetables
- For further information please see the Compost information page in the materials information sheets section

Non-recyclable –

What do we mean by non-recyclable?

- Products that are non-recyclable are produced from materials that presently cannot be recycled. This may be due to the non-existence of reprocessing facilities for the recycling of these materials, or that the facilities are too far away for it to be cost effective to reprocess the materials. It is quite possible that in the near future the technology will be available for the recycling of materials that are currently considered non-recyclable. For the time being these will have to be disposed of either through landfill disposal, incineration or another alternative technology