

The alternative plastic bag: Design competition

We are looking for innovative alternatives to the disposable plastic bag!

A competition for young people aged between 8 - 13

This bag was made in South Africa from reclaimed number plates



In this mini design project young people will learn about the problems with our plastic waste and be encouraged to rethink the way in which we use and dispose of our plastics.

Pupils will seek alternative and sustainable solutions to packaging by either re using non degradable materials or using sustainable natural materials.

Their bags will be exhibited in the Global Cafe. The entries will then be judged by the public who will be looking for innovative and sustainable bags!

Happy shopper with her stylish bag made from plastic packing tape!



risc

Design Brief



To design an innovative bag that is so stylish that it provides shoppers with an ethical and fashionable alternative to a disposable bag. They should be so fabulous that its owner would never forget to take it with them!

All designs need to be:

made from reclaimed materials, for example old clothes, plastic or metal milk bottle tops, cups, containers, broken carrier bags or natural items such as twigs. You can use any number of materials in your design.

Re usable, for example a paper bag would need to be made strong enough to be used more than once.

make sure the bag is not larger or heavier than the person using it!

It could be multifunctional. For example a bag that can be transformed into an emergency rain hat or a bag/lampshade, bag/jacket, bag/bike basket; be as crazy as possible!

Think about how your materials are joined or fixed together. Can they be woven? Can one material be used as a joiner or to make a frame?

Think about the shape of the bag, how can you make your bag stand out from the rest?

Fun and inventive! A design that is a conversation piece, art that is functional.

The competition

+If you would like your school to take part in the competition please register by sending a email to shehnoor@risc.org.uk. tel: 01189 958 6692 Please register by October 24th 2008

+All entrees must then be submitted by Monday 23rd November 2008. You can deliver your bags to the World Shop open Monday – Saturday between 10-5pm Please include your entry form with the bags and ensure each bag is labelled with the:

Students name

Age

A brief description of how the bag was made and what materials were used

+The bags will be exhibited at RISC in December in the Global Café. Members of the public will be invited vote to for their favourite bag design.

+The winners will be anounced at the Global Café on Sunday 14th December 2008 @ 4 pm. This will be part of a days children festival at the global café

+There will also be a cat walk fashion show on Reading High Street (TBC)

Entree form



Name of school

Telephone number

Address

Contact Teacher's name

Email:

tel:

Have you labelled all your bags?

Each bag should include: pupil's name, age and how they made their bags and materials used, why their bag is better than a disposable plastic one.

Design & Technology and Global Citizenship key stage 2&3

This project will enable pupils to:

- Develop ideas for a product and think about what they want their design to achieve. For example: minimising environmental impact, a bag with a long shelf life, a useful carrying device, its aesthetic qualities, do they want their bag to inspire other shoppers to drop their plastic bags.
- Take inspiration from non-plastic bags made from communities across the globe and consider how they are used and who uses them.
- Explore the properties of a variety of natural or reclaimed materials. How do the characteristics of a material change when they are used? Will it survive certain weather conditions? What happens when you combine different materials?
- Investigate various techniques for joining and fixing materials
- Devise ways of testing out their bags and make improvements if necessary.
- Communicate the concepts behind their bag design. The bags will be exhibited at the Global Café in December. Each bag will have the makers label will communicate through drawing or writing how the bag was made, materials used and the advantages of their bag to a throw away plastic one.
- To think creatively and find solutions to problems, that will improve the quality of our lives and our environment.

Knowledge and understanding

- Raise awareness of the finite of our resources
- Understand the relationship between human activity and the environment
- Consider actions they can take to minimise their impact on the environment

Plastic Quiz!

How much do your students know about plastic?



1. What are plastics made from?

- a Petroleum b trees c water d animals

Answer: Petroleum

The majority of synthetic plastics are made from polythene, which is sourced from petroleum. By cutting down our use of plastics we will reduce our dependency on plastics.

Students might also be interested to learn that shellac and the horns of animals were used as plastic materials before the first synthetic plastics were discovered.

2. Can plastic be recycled?

Answer: Because there are so many different types, plastic is very difficult (and expensive) to recycle. In fact, unless burned (which can be very dangerous as this releases toxic fumes) plastic never really disappears from our planet.

3. If it cannot be recycled where does most our plastic end up after we have disposed of it?

- a landfills b our oceans c they are re used

Answer: the oceans

The report “Plastic Debris in the World’s Oceans”, by international environmental group Greenpeace, said at least 267 marine species are known to have suffered from entanglement or ingestion of plastic debris. An estimated 1 million seabirds choke or get tangled in plastic nets, or other rubbish every year. After a plastic bag has killed an animal, its body decomposes and the plastic is released back into the environment where it can kill again.

4. About four-fifths of marine litter comes from land, swept by wind or washed by rain off highways and city streets, into drains, down streams and rivers, and out to sea. How much of this waste is floating plastic?

- a 20% b 60% c 90%

Answer: 90%

5. How many pieces of plastic debris do you think are floating in one square mile of Ocean?

- a 46 b 460 c 46,000

Answer: 46,000

In June 2006, a United Nations Environmental Program report estimated that there are an average of 46,000 pieces of plastic debris floating on or near the surface of every square mile of ocean

6. On average how long do we use a plastic bag before throwing it away?

- a one day b one month c 12 minutes

Answer: On average a person uses a plastic bag for 12 minutes before disposing. It then lasts in the

environment for between 500 to 1000 years.

7. How many bags do you think an average person uses a year?

a 1000 b 50 c 300

Answer: The world uses over 1.2 trillion plastic bags a year. That averages about 300 bags for each adult on the planet, or one million bags being used per minute. In Britain, approximately 13 billion plastic bags are given out to shoppers every year and at least 200 million end up as litter on our beaches, streets and parks.

8. Which of these countries have restricted (bags are not given away free) banned or are planning to ban the plastic bag?

Bangladesh, Rwanda, Israel, Canada, western Indian state of Maharashtra, Botswana, Kenya, South Africa, Taiwan, Singapore, China and Ireland

Answer: all of them

Many countries have banned plastic bags or imposed taxes to reduce their use. Some towns in the UK have gone Plastic Bag Free www.plasticbagfree.com

Bangladesh, Rwanda, Israel, Canada, western Indian state of Maharashtra, Botswana, Kenya, South Africa, Taiwan and Singapore have banned or moving towards banning the plastic bag.

China has banned free plastic bags

Ireland took the lead in Europe by taxing plastic bags, reducing consumption by 90 %

9. What is the difference between reclaiming and recycling?

Answer: To reclaim is to use an item beyond its original purpose. For example you may re-use your ice cream tubs or Chinese take away boxes as lunch boxes or storage. The manufacturing processes in recycling uses energy and needs to be transported which causes pollution.

You can find further information on:

www.messageinthewaves.com

Extracts from the film online can be shown to students to demonstrate the environmental and human impact of global plastic pollution.

www.plasticbagfree.com

How can you make your town plastic bag free?

www.mcsuk.org

Marine Conservation Society – UK charity dedicated to protecting the marine environment and its wildlife. Produces the annual Good Beach Guide, as well as promoting public participation in volunteer projects and surveys such as Beachwatch, Adopt-a-Beach, Seasearch and Basking Shark Watch. tel. 01989 566017

oceans.greenpeace.org

Greenpeace 'defending our oceans' campaign – Find out why our oceans are in crisis and become an ocean defender.

www.unep.org/regionalseas/marinelitter

United Nations Environment Programme –

www.plasticbagfree.com

Modbury – England's first plastic bag free town www.plasticbagfree.com

www.marlin.ac.uk

The Marine Biological Association of the UK and Ireland (marLIN) –

www.wdcs.org

The Whale and Dolphin Conservation Society

Surfers against Sewage- information about and campaigning on sea water quality. www.sas.org.uk

www.algalita.org

The Algalita Marine Research Foundation – dedicated to the protection of the marine environment and its watersheds through research, education, and restoration.

Teaching Resources on waste and sustainability

The sustainability assembly pack- RISC publication

Plastic Fantastic? Fran Crowe attempted to ‘save the sea’ by collecting 46,000 pieces of plastic from her local Suffolk beaches. Fran’s research and art work can be borrowed from RISC’s loans service.

We also have many innovative products from around the World made from reclaimed materials, see our website: www.risc.org.uk/with/index.html

www.globalfootprints.org

www.recyclezone.org.uk

www.oxfam.org/coolplane/water/index.htm

www.earthfromtheair.com

www.stepin.org

www.coolkidsforaclimate.com

www.plantcultures.org.uk/schools/schools_food_miles.html

www.safeclimate.net/calculator

www.ecologyfund.com

www.epa.vic.gov.au/eco-footprint/schools/default.asp

www.greenfutures.org.uk

www.wwflearning.org.uk



Here are some examples of other types of materials that people use to make bags

Natural materials



Jute:

is 100% biodegradable

is durable and has a life span comparable to 1000 plastic bags

is a natural plant fibre that is a renewable and sustainable resource

No toxic gases or harmful emissions are created in the production of jute bags

Jute plants consume CO₂ - the main cause of the greenhouse effect

The Jute industry provides income for an estimated five million people in India and Bangladesh



Banana leaf bags:

The leaves of the banana plant are large, flexible, and waterproof. They are used many ways, including as umbrellas and to wrap food for cooking or storage.

The Banana leaf is 100% biodegradable and non-toxic.



Palmyra leaves palm leaves: Sri Lanka

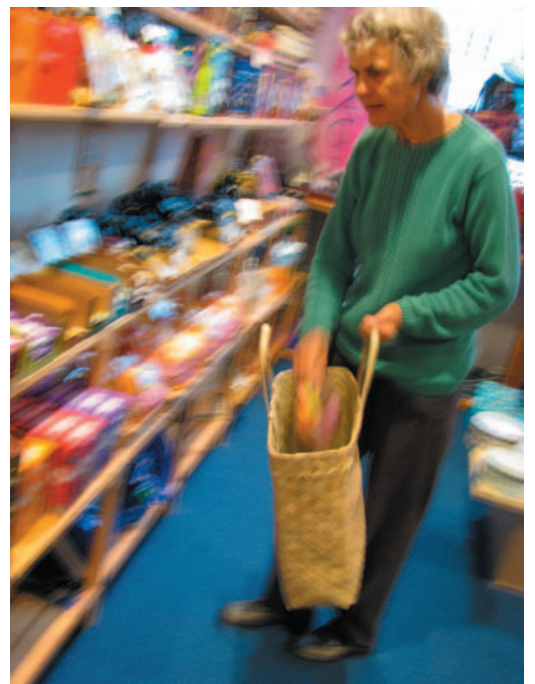


WOOL

Felt bag from combed unspun wool combed with bits of knitted wool.

Karagumoy plant: central Philippines.

The plants strong and long leaves are used to make bags and mats.



Cotton bags

Are 100% biodegradable

Cotton is a natural plant fibre

If grown on an organic COTTON FARM, the bag will be free of toxins. However non-organic cotton is most likely to include compounds such as cyanide alongside other harmful agricultural pesticides. Cotton bags are strong, light and durable



Reclaimed materials



Crisp packets: Re use all those old crisp packets, that you see floating on your pavements and hiding in trees by weaving your own bag

Tetra Packs: Tetra packs that are impossible to recycle. They can also be cut into strips and woven

Online weaving instructions:

www.gumwrapper.com/build.htm

This is the link to begin the weave....

www.candywrapperpurse.blogspot.com



Wrapper pencil case: Morocco

Aluminium cans:

It takes about 400 years for aluminium to break down naturally. That Coke cans you just drank from will probably still look about the same in another century or two.

Aluminium is the only material that can be recycled endlessly and in fact it takes 95% less energy to recycle it than extract it from Bauxite





Ricebag: India
a bag made from old rice sacks.

Plastic bags

Don't throw them! Knit, crochet or weave those bags to make a stronger long lasting bag.

www.myrecycledbags.com

Packing tape basket:

Swaziland
This bag was made from waste packing tape from South Africa. There is a long tradition of basket making in this area and the basket makers are experimenting with brightly coloured reclaimed materials, including telephone wire.

Weaving a bag- online instructions

www.instructables.com/id/Packing-Strap-Bag



Number plates: A lap top bag from SouthAfrica made from reclaimed number plates.

7

Thank you to
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