



BACKGROUND NOTES FOR TEACHERS

"To know when you have enough is to be rich."

Chinese philosopher Lao Tzu

We would like this pack to help your school, your students and your community change the way everybody thinks about the stuff we throw away...

WASTE ISN'T NATURAL!

Nature uses everything! In a natural system, surplus or waste from one organism becomes a resource for another in a continuous cycle. ZERO WASTE is a fundamental principle of the natural world.

But since the introduction of oil based plastics, metals and chemicals, humans have been creating things that don't transform themselves by either rotting or being eaten or used by other life-forms. (**THE TIMELINE GAME** explores how this has happened).

At the moment we humans take materials from the earth (using lots of energy), turn them into goods (using lots of energy), use or consume them and then throw them away!

Unfortunately we cannot keep doing this forever because:

It is becoming more and more difficult to find or dig up the metals and oil

Our landfills are nearly all full

Whenever we burn our waste we add to global warming

**Let's not talk about waste...
...let's talk about 'cast offs'.**

We don't *have* to bury our cast offs in holes in the ground.

We can **REPAIR** them or **REUSE** them or **RECYCLE** them!

But the best way prevent the build up of cast offs is to

NOT BUY THEM IN THE FIRST PLACE!!!

(and it's cheaper!)

Why do we cast off so much?

So that we spend spend spend!



BACKGROUND NOTES FOR TEACHERS CONT...

Many businesses design their products with a limited lifespan in mind this is known as built-in obsolescence. We view these things as disposable. Disposable products are marketed as convenient, at the expense of durability, reparability and cost.

Using valuable resources to make and sell things which are used once then thrown away is getting us into trouble. Resources are used up faster and faster and a mountain of rubbish that we cant deal with is being created.

We cast off so much because up until now we haven't had to take responsibility for it. Our rubbish is taken from us out of sight and many of us never visit a landfill site or experience directly the consequences of all our weekly rubbish bags. But this has changed. There is a new landfill tax. If we do not increase our recycling, each Calderdale household could pay an extra £66 pounds a year in council tax to meet the landfill tax fine.

TO REDUCE THE AMOUNT OF STUFF THAT WE SEND TO LANDFILL WE CAN...

RETHINK "To know when you have enough is to be rich." We are bombarded with advertisements that shout more, more, more, spend, spend, spend. We are encouraged to think that we *have* to own things. Think about it - do you want a washing machine, or do you want clean clothes? Do you want a fridge in your kitchen, or do you want chilled food? How could we get the clean clothes or the chilled food without a washing machine or a fridge?

REFUSE Use consumer / purchasing power. Refuse/avoid packaging. In Germany (where they are fined if they do not recycle) they strip the packaging off at the super market and leave it there!

REPAIR Help to re-activate traditional industries. Buy products with a long life and always aspire to get maximum use out of purchases.

REDUCE Sharing things, lending things, selling on or giving away things we no longer want. Borrowing something, buying it second hand, having a time-share in it...

REUSE Re-fill your bottle, recharge your batteries, use cloth shopping bags (or a wicker basket!)

RECYCLE Finally, when there is no more use for an item in its current shape or form, it can be recycled, requiring less energy and new raw material resources than making the item from scratch.



BACKGROUND NOTES FOR TEACHERS CONT...

WHAT DO WE THROW AWAY?

'POST-CONSUMER WASTE'.

28 million tonnes of rubbish from our homes is collected every year in the UK. This weighs the same as three and a half *million* double-decker buses, a queue of which would go around the world two and a half times.

A very large percentage of this is made up of packaging from goods we have bought. (One-third of the average landfill is made up of packaging material.)

'PRE-CONSUMER WASTE'

Is created through power generation, mining for raw materials, industry, agriculture and commerce all the activities that directly contribute to our lifestyles.

In our highly industrial world almost everything we buy and use on a daily basis generates resources that we throw away. The madness about all this is that it costs less in terms of resources if we reuse and recycle them instead of throwing them away!

The **QUIRKY FACTS GAME** has lots of examples of this.

WHAT'S THE PROBLEM WITH LANDFILL?

We are running out of places to site our landfills and we have to close many of the present landfills because they do not comply with European regulations.

Landfills create methane, a flammable gas produced when organic matter decomposes underground without air. When it is allowed to accumulate the gas represents a safety hazard, an explosion waiting to happen. When it escapes it contributes to the greenhouse effect.

Landfills also create a liquid known as leachate. Escaping leachate is likely to contaminate the soil and groundwater supplies.

Landfills damage the quality of our natural environment for future generations, plants and animals.

SOME KEY TERMS

WASTE REDUCTION making fewer purchases, avoiding items with lots of packaging, not buying disposable products

ZERO WASTE a whole system approach that aims to completely transform the way materials flow through society resulting in no waste

SUSTAINABLE DEVELOPMENT using the Earth's resources to meet our present needs without compromising the ability of future generations to meet their own needs

DECOMPOSE to decay, rot. The natural breakdown of some (organic) waste products

RENEWABLE RESOURCE resources that can be replaced for example, wood, wind, water power

NON-RENEWABLE RESOURCE resources that cannot be replaced, for example, coal, gas, oil

RECYCLING processing waste products so that the materials can be used again



BACKGROUND NOTES FOR TEACHERS CONT... FOR FURTHER INFORMATION...

BOOKS

Rethink, Refuse, Reduce...Education for sustainability in a changing world

Ken Webster ISBN 1851532862 £15.00 Guide for educators. Great introduction to subject of sustainability with particular focus on waste awareness.

Beyond The Bin; The Livewire Guide to Reusing and Recycling, Jo Budd
ISBN 0704349523 £4.99 Written for 'young adults', but very useful as teachers' guide to the subject.
Comprehensive and relevant to young peoples' lives.

Reduce, Reuse, Recycle; An easy household guide, Nicky Scott ISBN 1903998409 £3.95 A-Z
guide to recycling everyday household items. Suitable for older children.

Don't throw it all Away, Friends of the Earth ISBN 1857503465 £6.50
Illustrated guide to reducing waste. Tips and directory. Suitable for older children.

WEBSITES

www.suschool.org.uk the best place on the web for teachers and pupils interested in environmental issues and sustainability

www.recyclenow.com good sections on recycling at school and compost

www.wastewatch.org.uk / education - Good source of free resources and facts. Suitable for teachers and older children.

www.recyclingconsortium.org.uk Bristol-based waste awareness site with schools section and very good teachers resources

www.wastepoint.co.uk/factsheets.asp - UK recycling database. Good informative site with many free factsheets to download

www.recycle-more.co.uk Includes fun ideas for classroom/school-based recycling activities for children aged 5-11

www.eco-schools.org.uk/waste - ideas for teaching waste-awareness in schools & fun games in kidszone

www.foe.org.uk/ learning/educators very good resource from Friends of the Earth. Download free national curriculum based education packs

www.recyclecalder.co.uk Map of Calderdale recycling facilities

www.oilierecycles.com Downloads, games, projects and links for children and teachers. Australian. Has downloadable resources

www.recyclingglass.co.uk good teachers resources and interactive kids games to do with glass recycling

www.recyclenow.com/at_school

www.biffa.co.uk Education zone and offers school-group visits to landfill sites and waste officers visits to schools

www.actionaidrecycling.org.uk recycles mobile phones and ink cartridges to raise money for aid projects in developing countries. Good downloads and posters

<http://www.epa.gov/recyclecity/> - An American resource, packed full of information and with a 'dumpster game.'