WHAT CAN WE RECYCLE
(RECYCLING TECHNOLOGIES)

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What can we recycle?

• Many things are recyclable – and many more would be if we re-thought the way we do and manufacture things, i.e. challenge ‘business as usual’ paradigm.

• Glass – only bottles – not Pyrex (heat resistant glass) brown glass locally done green glass sent to Brazil

• Plastic – many different types – needs to be sorted based on specification.

• Paper – but not waxed or glued paper. Glossy paper more difficult to re-cycle.

• Organics – compost heaps only for uncooked matter – other systems can deal with all sorts – e.g. biogas generators use sewage, composting by worms and bacteria. (have shown in class the food waste options being considered by UWC).
Recycling continued

- Aluminium (clean foil, cans, etc.)
- Tins (please remove label and rinse)
- E-waste (e.g. old computers, cell phones, etc.)
- Batteries (but beware of where they go to)
- Cars (modern cars are getting to be >90% recyclable)
- Builders’ rubble
- Clothing
Does recycling have to be ‘untidy’?
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http://www.ukhomeideas.co.uk/images/brabantia/twin-pedal-bin.jpg


http://www.itravelnet.com/photos/eu/netherlands/maastricht/recycling-depot.jpg

http://ecx.images-amazon.com/images/I/41IQ45Hj4BL._SL500_AA280_.jpg
Does recycling have to be difficult?

The items below should be placed in the YELLOW lid bin - i.e. RECYCLING BIN

- Aluminium cans and empty aerosol cans
- Paper and cardboard products
- Paper and magazines
- Cardboard
- Plastic bottles and containers
- Cartons
- Glass bottles and jars

PLEASE REMEMBER DO NOT PLACE YOUR RECYCLING IN PLASTIC BAGS!

Example of glass recycling

http://www.trims.co.jp/english/images/factorymap.jpg
Glass recycling

Bottles and jars are recycled by you! The collection company sends them to a glass recycler.

First, sand is mixed and melted with soda ash, limestone, and recycled glass, known as cullet.

The molten glass is then pressed and blown into molds where it is formed into bottles and jars.

Once mixed, these ingredients are heated to about 2700 degrees F until they melt into a soft liquid.

http://www.rethinkwaste.org/images/r_glass.jpg
Car recycling

http://www.arn.nl/5pers/foto1.jpg

http://www.winchester.gov.uk/Image/News/scrapped%20car.jpg
Car recycling plant

Plastic recycling (labelling)

1. PETE
2. HDPE
3. V
4. LDPE
5. PP
6. PS
7. OTHER

www.danielbowen.com/2006/01/02/plastic-recycling/
E-waste recycling

www.facilities.usyd.edu.au/.../su_ewaste2007.jpg

www.greenpeace.org/international/news/e-waste...

http://dste.puducherry.gov.in/envisnew/images1/industrialimage004.jpg
Fluorescent/energy saver lights

http://www2.flr.ca/images/LampFlowchart.jpg
Lead acid car batteries

Lead acid batteries in South America
Cells/batteries from torches, cell phones, etc.

http://2.bp.blogspot.com/_mUEscDaHuw0/RqofX8ZGLTI/AAAAAAAAATw/8LcfJ3wMTco/s400/battery_recycling.jpg

http://www.hygiensesuppliesdirect.com/images/productpics/1319201.jpg
What can we reuse?

• Some plastic bottles – e.g. Coke 1.5l, your own bottles that you refill with milk at Fruit and Veg City
• Some glass bottles – e.g. milk bottles in UK, some beer bottles, laboratory glassware
• Crockery (c.f. expanded polystyrene takeaway containers), cutlery, etc.
• Clothes – can be washed and reused/resold
• Biobaba nappies (a reusable nappy that you wash)
• Rechargeable Lithium batteries
Biobaba reusable nappy

Source: Vicki Penfold
What can we reduce?

• Use “Refill Packs” were possible.
• Make products more resource efficient (i.e. use less materials in their construction, creation and ultimate disposal see Wander’s sparkling chair).
• Make products out of recyclable material.
• Reduce the need to own things – pool our resources, share things, rent things, borrow things.
• Do we need to own holiday homes? Do we need SUVs? Do we need to own books?
Why and how reduce?

- Reducing waste saves resources and saves money
- Striving for OPTIMIZATION of process and resource use
- Contributes to sustainable development
Marcel Wanders
Sparkling Chair (Magis)
And not reduce just in the material waste...

- Nike Considered range
- Most materials within 320km of factory
- Solvent used ↓80%
- Leather from tannery that recycled water
- Hemp included in fabric upper

Info/image: http://en.wikipedia.org/wiki/Nike_Considered
Cradle to cradle and cradle to grave

• Life cycle assessment
• Looking at the big picture
• Looking to improve the way we do business...and life
• Systems thinking?
• ‘C2C certification’ – protected term of the McDonough Braungart Design Chemistry (MBDC) consultants – they wrote book ‘Cradle to Cradle’
Cradle to cradle recycling: carpet