

### Paper

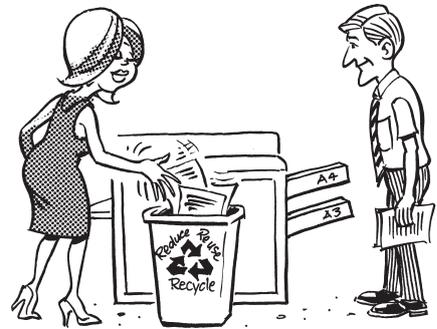
#### Did you know?

- 1 tonne of recycled paper or cardboard saves:  
approximately 13 trees;  
2.5 barrels of oil;  
4100 kwh of electricity;  
4 cubic metres of landfill; and  
31,780 litres of water.
- Paper can usually be recycled up to eight times.
- Recycling a kilogram of paper into newsprint saves up to a kilogram of greenhouse gas.
- Off-cuts from making sawn timber for housing are also used to make newsprint and other paper.

#### About paper

Paper was made by hand and used for thousands of years, but it was not until the introduction of mechanised paper making machines in the 18th century, that paper became a cheap and readily available material. Paper today is made from wood pulp derived from wood chips, either from short-fibred hardwoods (eg eucalypts) or long-fibred softwoods (eg pines). Some paper is made using cotton fibres.

Paper is made by first turning tree logs into woodchips that are about the size of a large postage stamp. Individual fibres are extracted from chips using water and heat, then are mashed into a pulp. Pulp is bleached and flattened onto rolling screens where water is removed and the pulp dried; the rollers help make the paper smooth. Once flat and dried the paper is ready to be turned into note pads, newspapers and other products.



## Being waste wise with paper

Recycling paper ensures that less paper goes to landfill, where it breaks down and produces greenhouse gases. Minimising and recycling paper waste reduces the number of trees that are needed for new paper production. There are three steps to follow to reduce paper waste:

### Reduce

Reduce paper use in your home, school or workplace. Some suggestions are:

- Re-use photocopy and pre-used paper for memos, notes, draft letters and reports (set a designated tray at printers and photocopiers for this purpose).
- Proof read your work from the computer screen before printing a hard copy.
- Use e-mail.
- Double-side photocopies when copying multiple pages.



### Reuse

Reuse paper with the following ideas:

- Use scrap paper to make message, note or drawing pads.
- Shred and use for pet bedding or packing breakables.
- Line rubbish bins with paper to catch liquid spills.
- Add to your compost heap or feed to your worms.
- Open envelopes carefully so they can be used again.

To reuse cardboard:

- Use boxes to wrap gifts.
- Cut up pieces of card for flashcards or recipe cards.
- Cut cereal boxes on an angle and using to store magazines.



### Recycle

Paper is sorted into a range of qualities and types for recycling. There are some differences in the types of paper and cardboard accepted by recycling contractors. Check with your local Council for details. If arranging paper recycling contracts for your school or workplace, 'shop around' for the recyclers that will take the biggest range of paper and cardboard.

The degradation of fibres during recycling may reduce the quality of the recycled paper and limit the number of times that a particular paper fibre can be recycled. Adding some virgin fibre or good quality waste fibres to the recycled pulp can improve the quality of the recycled product.

Old newspapers cannot be used to produce high quality printing and writing papers, but they can be used to make recycled newsprint.

## The recycling process

Different grades of paper and cardboard are recycled separately although the actual process is similar.

1. Paper is collected from homes, schools and offices.
2. The paper is sorted into grades, baled and kept in storage areas in preparation for processing.
3. During processing, paper is tipped into a huge pot. The pot spins the paper around with lots of water until it is thoroughly soaked and starts to break down.
4. The soggy paper (pulp) is poured onto a screen that shakes it very hard from side to side removing excess water. The water is usually recycled elsewhere in the factory.
5. The pulp is run through rollers where the rest of the water is pressed out and dried off.
6. The paper is rolled onto a spool and is now ready to be made into new paper products.

## Resources:

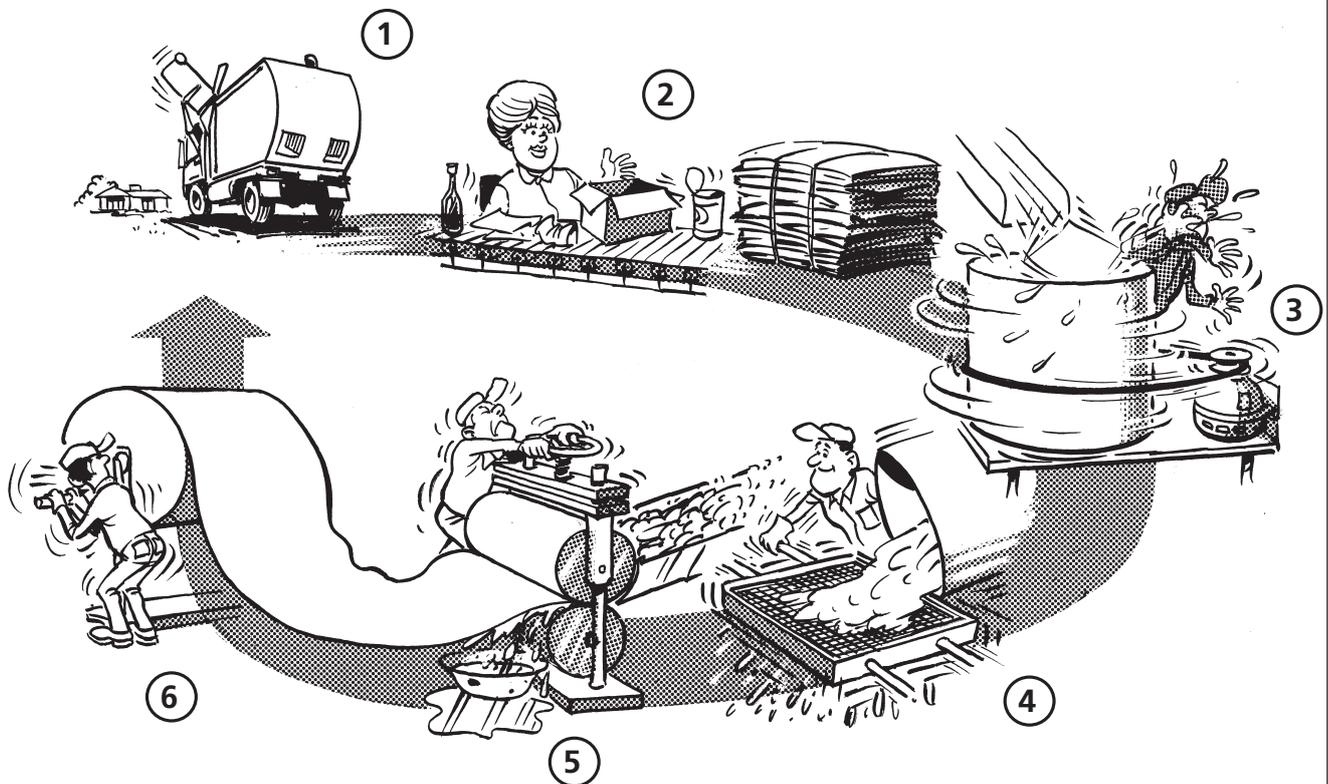
Visy. 2000. Visy Boxed Kit

## Useful websites:

[www.pneb.com.au](http://www.pneb.com.au)

[www.apg.com.au/paperr.htm](http://www.apg.com.au/paperr.htm)

[www.ppmfa.com.au/recycling.htm](http://www.ppmfa.com.au/recycling.htm)





## The Waste Wise Schools Program

The following program elements are funded by the Waste Management and Recycling Fund from money collected as a Waste Levy when waste is delivered to landfill. The Waste Wise Schools Program is helping to work towards Zero Waste in WA.



### Waste Wise Schools Program

This program empowers schools to minimise their waste outputs and incorporate waste issues into the curriculum. The program provides teacher workshops, the Waste Wise Schools Kit, a network of Support Schools, Accreditation and Awards programs and ongoing support.

### Waste Wise Schools Mobile Display

The Waste Wise Schools interactive Mobile Display about waste and recycling is available for *Participating* Waste Wise Schools, community groups, expos and shows. A Waste Education Coordinator will staff the display to conduct presentations, school waste audits and set up composting and worm farming systems upon request.

### Waste Wise Schools Grants

These grants provide opportunities for *Participating* Waste Wise Schools and their related communities to undertake waste minimisation projects in their school. Grants are available, with applications assessed monthly.

### Waste Wise Schools Website: [www.wastewise.wa.gov.au](http://www.wastewise.wa.gov.au)

This website is your on-line link to the Waste Wise Schools Program. You will also find information on how to 'Shop Smart', recycle organic waste at home and recycle a variety of different waste items through the RecycleIT directory. The complete series of fact sheets are also available to download.

For further information on issues relating to waste minimisation in WA, visit [www.zerowastewa.com.au](http://www.zerowastewa.com.au)

### Contact

For further information, contact the Waste Wise Schools program at the Department of Environment and Conservation.

Phone: (08) 6467 5133 or (08) 6467 5141.

Email: [wastewise@dec.wa.gov.au](mailto:wastewise@dec.wa.gov.au)

