

# Textiles



## What are Textiles?

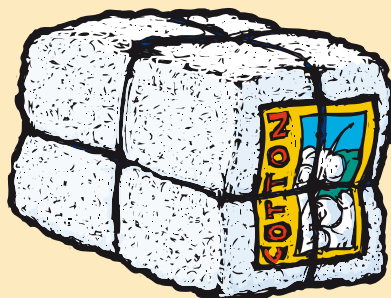
- Textiles are woven fabrics, however, recycling collections often include items such as lace, knitwear and shoes

## How textiles are made?

- Woven materials are made by weaving yarns together. Yarns are thousands of short, fine fibres that have been twisted together tightly to make one long one
- Fibres can be natural, man-made or synthetic. Natural fibres are cotton, wool and silk. Man-made fibres consist of acetate fibres and cellulose fibres, which are made from wood pulp sources e.g. viscose. There are also fibres that are constructed from oil based chemicals, these are synthetic fibres e.g. nylon and acrylic

## Cotton

- Cotton is grown on cultivated shrubs that grow up to 2m tall
- Cotton is grown all over the world, particularly the USA, China, Russia, Brazil, Mexico, India and African countries
- On small farms the cotton is picked by hand and packed in loose bales, it is then taken to the market. In countries where labour costs are high picking machines are used
- The cotton is purchased by traders and transported to ginneries. The ginning machines separate the cotton fibres from the seeds using circular saws
- The cotton is baled tightly in 220kg bales
- The cotton is carded, combed and spun to produce yarn



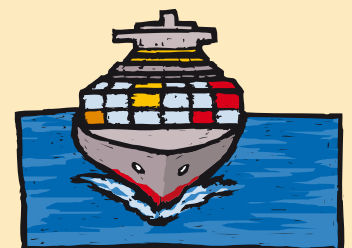
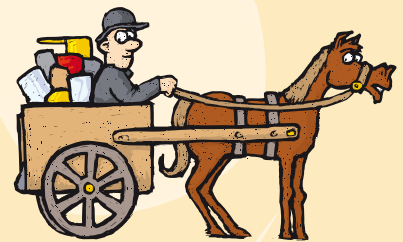
## Wool

- There are about 1,000 million sheep in the world and around 500 different breeds
- The wool is sheared from the sheep
- The wool is carded, combed, and spun to produce yarn
- The yarn or thread can then be woven to produce the textile product required



## Textiles Recycling/Reuse

- Textiles make up around 2% of household waste <sup>1</sup>
- Textile recycling originated in the Yorkshire Dales around 200 years ago with the 'rag and bone' men <sup>1</sup>
- Textiles are collected in 'clothes banks', kerbside schemes, or they can be taken to charity shops
- Textiles collected in clothes banks are taken to a sorting depot where workers pick through the materials sorting them into different types e.g. piles of shirts, piles of jackets etc. The different clothes are then graded
- A majority of the textiles collected in the UK are reused as they are sold in charity shops or exported to foreign markets. Over 100,000 tonnes of textiles are shipped to Africa for reuse each year <sup>2</sup>



# Where do textiles go?

## WEARABLE TEXTILES

### Shoes

These are resold abroad in countries such as Pakistan, India, Africa and East European countries <sup>1</sup>

### Clothes

These are resold in the UK and abroad. Oxfam's Wastesaver provides clothing in countries such as Mozambique, Malawi and Angola for emergency use. Other clothes are more suitable for providing warm winter clothing in countries such as Albania, Afghanistan and northern Iraq <sup>1</sup>

## UNWEARABLE TEXTILES

These are sold to the flocking industry (this where the fibres can be unravelled or shredded and mixed with other things). They can then be used to make new items e.g. old woollen jackets can be made into blankets

### Woollen garments

These are sold to companies that can reuse the yarn or fabric

### Cotton and silk

These are sorted into the various grades and used to make wiping cloths. They are also used in the paper making industry <sup>1</sup>

## Textile facts

- Over 70% of the world's population use second hand clothes <sup>2</sup>
- 75% of recyclable clothes are thrown away. This amounts to 1 million tonnes of textiles in the UK each year <sup>3</sup>
- Making 1 million tonnes of clothing takes 1.5 billion gallons of oil <sup>3</sup>
- More than 80% of the materials are consumed and thrown away by less than 20% of the world's population <sup>2</sup>
- The sorting of the clothes is a very labour intensive procedure and requires a significant amount of specialist knowledge. Today the specialist textile recycler will sort into about 140 different grades <sup>2</sup>

## Weblinks

- [www.e4s.org.uk](http://www.e4s.org.uk)
  - Education for Sustainability
  - Activities
  - Teaching Notes
- [www.wasteonline.org.uk/resources/InformationSheets/Textiles.htm](http://www.wasteonline.org.uk/resources/InformationSheets/Textiles.htm)
  - Information page on textiles
- <http://www.guardian.co.uk/g2/story/0,,1155254,00.html>
  - This is a story that was printed in the Guardian newspaper and follows the route of clothes put in a recycling bank in Ashby-de-la-Zouch, Leicestershire

## References

<sup>1</sup> [www.wasteonline.org.uk](http://www.wasteonline.org.uk)

<sup>2</sup> [www.e4s.org.uk/textilesonline/world.htm](http://www.e4s.org.uk/textilesonline/world.htm)

<sup>3</sup> [www.reuze.co.uk](http://www.reuze.co.uk)

