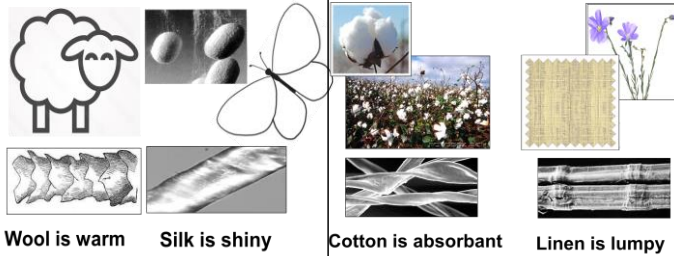


1: Fibres

1. Natural fibres

Come from **plants** and **animals** and are:

- **biodegradable** (they decompose/rot)
- **renewable** (they grow again)
- **sustainable** (they are replaced at the same rate at which they are used)



Cotton - Environmental concerns

Cotton growers can achieve **3** crops a year making it very **cheap** to produce!

However, there are some major **environmental issues** with the production of cotton:

- Cotton crops are sprayed with **pesticides** (chemicals) to prevent disease and to increase crop yield. This is bad for the **environment**, **workers** and **wildlife** who can breathe in the fumes.
- Lots of **water** is used to process cotton, which is diverted from rivers, leading to water shortages.
- **Chemicals** are used to dye/bleach cotton, which can leak into rivers, leading to river/sea pollution.



Upcycling in textiles - we can all do this!!

- Textiles products like clothing can easily be **deconstructed** (taken apart) and made into new products.
- Component parts like buttons can be **reused** on other products.
- Some clothing can simply be **re-modelled** and **restyled** like cutting jeans down to shorts, or by adding new features like patches.



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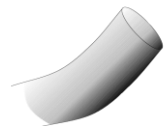
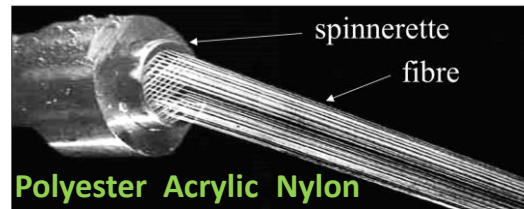
2. Synthetic fibres

Come from **oil** and **chemicals** and are:

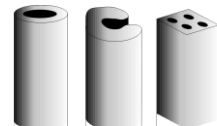
- **not biodegradable** (do not rot).
- **not renewable** (do not grow again)
- **add to environmental problems**



Synthetic ('man-made' fibres) are made using chemicals. Hot sticky liquids are pumped through tiny holes in a '**Spinnerette**'. It is like squirting hot glue out of a shower! When cool, the fibres are strong and waterproof, but they are **not bio-degradable** & **not environmentally friendly**.

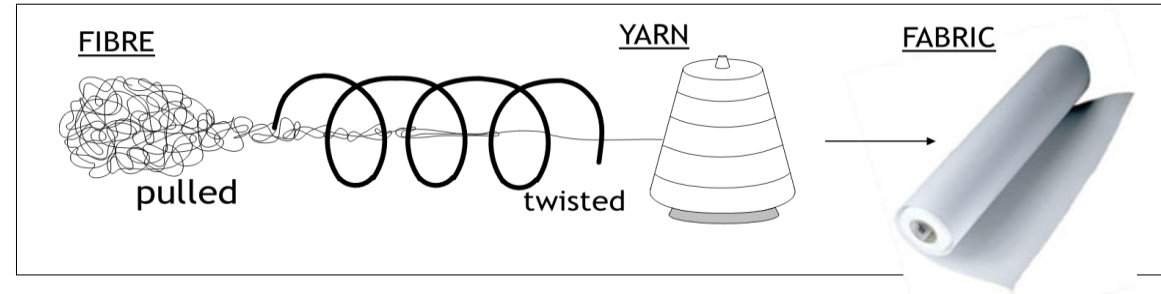


Synthetic fibres are called **filaments**. They are smooth and round like fishing twine.

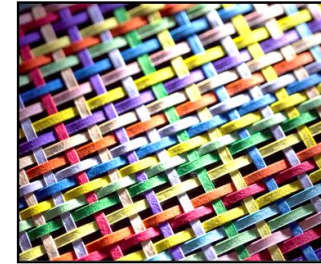


Some filaments are special shapes, and even have tiny holes down the middle.
Why?

2: Yarns



3: Fabrics



woven

- Stable/non-stretchy
- Strong
- Keeps its shape
- Can **fray** if cut



knitted

- Stretchy
- Warm
- Can lose shape
- **Unravels** if cut



non-woven

- Stable
- Weak
- Cheap
- **Tears easily** - made from a web of fibres

Reduce
Reduce the amount of unsustainable resources used.

Reuse
Find a new use for old fabrics and components.

Repair
Mend products that are broken rather than throwing them away.

Recycle
Many fabrics can be reprocessed into new fabrics.

Refuse
Don't buy products unless they are sustainable or there is a real need.

Rethink
Use environmentally friendly fabrics instead of manmade ones.

