

Annex 1 – Lifecycle of a cotton t-shirt

Information for students

- **Raw material extraction**
 - Lifecycle of a cotton t-shirt starts from growing cotton and collecting it.
- **Material processing**
 - Next step is spinning the yarn and weaving the fabric.
- **Manufacturing and assembly**
 - Next step is cutting the fabric and sewing the t-shirt. Left over fabric is thrown away as a garbage.
 - T-shirt is washed and label is added.
 - T-shirts are packed individually into plastic and in groups to cardboard boxes.
- **Transportation**
 - Then they are transported to different countries with a ship.
 - Then they are transported to shops in a diesel truck. Shops unload the packages to display the t-shirts. Plastic covers are thrown out as garbage. Carboard boxes are recycled
- **T-shirt is advertised in media.**
- **Product use**
 - Consumer buys the product.
 - Consumer uses the product for a year.
- **Disposal**
 - Consumer throws the t-shirt away.
 - T-shirt goes to landfill and lifecycle comes to an end.

Annex 2 – Lifecycle of a cotton t-shirt

Information for teachers

Some examples what the answers could be:

- Lifecycle of a cotton t-shirt starts from growing cotton and collecting it.
 - Students should think what the working conditions for farmers are (Fairtrade). Cotton is not the most sustainable choice as a raw material. To collect cotton, they use a lot of chemicals. More sustainable choice is organic cotton.
- Next step is spinning the yarn and weaving the fabric.
 - Students should consider what kind of factory manufactures this. Is it using sustainable energy sources? Does it have fair working conditions?
- Next step is cutting the fabric and sewing the t-shirt. Left over fabric is thrown away as a garbage.
 - Students should consider what kind of factory manufactures this. Is it using sustainable energy sources? Does it have fair working conditions?
- T-shirt is washed and label is added.
- T-shirts are packed individually into plastic and in groups to cardboard boxes.
 - Do the shirts have to be packed individually to plastic? Is there a better option to the packages?
- Then they are transported to different countries with a ship.
 - Is the shipping ecological?
- Then they are transported to shops in a diesel truck.
 - Other options for transportation are a biogas truck or if it's possible, train.
- Shops unload the packages to display the t-shirts. Plastic covers are thrown out as garbage. Cardboard boxes are recycled.
- T-shirt is advertised in media.
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- Consumer buys the product.
- Consumer uses the product for a year.
 - How can the consumer extend the use of the product?
- Consumer throws the t-shirt away.
 - If the product is not broken, it could be sold or given to other people. Could it be used in a different way (not as t-shirt)?
- T-shirt goes to landfill and lifecycle comes to an end.
 - Could it be recycled?
 - Burning waste is energy.