

Homework 1 - Textiles in the modern world

Learning Objective: To increase awareness of textile products around us.

Watch these videos on youtube:

<https://youtu.be/1U8iPCf67A0>

<https://youtu.be/rwHJqgwtpVI>

"Textiles is not just about fashion and soft furnishings"

Here are some other places we find textile products:

Sports and Leisure

Personal Protective Equipment

Bullet proof

Fire proof

Many textiles products have been developed because they can protect the person wearing it.

Medical and Hygiene

PPE – Personal Protective Equipment

- Clothing
- Uniforms
- Facemasks
- Bandages, plasters and dressings

Aerospace and the Air Industry

The Air Industry:

- Airline travel
- Space crafts
- Other flying crafts – Hot air balloons, microlights, parachutes etc

Technical Textiles:

- Carbon fibre is woven into a fabric and then set in a resin to create a tough component with a low weigh, also having very good heat and fire resistance.
- Personal Protective Equipment, such as the G-suits which prevent the pilot from blacking out in flight.

Aerospace is defined as the earth's atmosphere or the space

Construction Industry

Textile materials fulfil a range of functions in construction, providing reinforcement, UV and water resistance, as well as thermal and sound insulation.

Construction

The retractable roof at Wimbledon is Tenora fabric on a steel frame.

- Traditional construction materials would be too heavy to allow for the structure to move, but the fabric is lightweight and durable enough to fulfil a role unachievable without the implementation of technical textiles.

In the Automotive industry

They provide comfort and aesthetics inside:

- the seats
- side panels
- Carpets
- parcel shelf's
- roofing.

Safety:

- seat belts
- air bags.

Inside the engine:

- belts to drive components.
- They form reinforcement for hoses and for tyres.

Agriculture and Horticulture

Netting used to protect plants form insects and birds is constructed using a loose woven technique.

Name:

Date:

Key stage 3 Homework : Textiles in the modern world

First read the information on the left and watch the videos.

- Give 3 examples of textiles products in the Medical and Hygiene industry?
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- Give 2 examples of how textile materials have been used in the construction industry.
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- Give 3 examples of textiles in the Automotive industry?
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- Why is the retractable roof at Wimbledon made from Tenora fabric?

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- What textile construction method has been used to create the netting that protects plants?

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- Give an example of how textiles have been used in the Air and Aerospace industry?

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- Materials have been specially developed to make personal protective clothing. Give an example and explain how it has been developed?

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Look around your home and think about all the textile products you come across in your daily life. How many other examples can you list under the following headings? (continue on the back of the sheet)

Indoor and Outdoor Clothing

Home Furnishings

Other Textile Products