

Year 9 Design & Technology

Compliant materials

Textiles- Is a flexible piece of material made by creating an interlocking network of yarns or threads, which are produced by spinning raw fibres into long and twisted lengths. Textiles are then formed by weaving, knitting, crocheting, knotting, tatting, felting, bonding, or braiding these yarns together.



Can you EXPLAIN the key differences between resistant and compliant materials. Consider the processes involved in manufacturing these materials

Fabric Embellishments



Fabric Embellishments- This is where you decorate your fabrics using different methods such as beading, printing, embroidery

Why do people embellish their textiles items such as T-Shirts and bags?
Please explain.

Natural Fabrics

Cotton
From the cotton plant

Properties and end-uses of natural fibres

Cotton



Properties

- Cool to wear
- Very absorbent, dries slowly
- Soft handle
- Good drape
- Durable
- Creases easily
- Wash and iron

Linen



Properties

- Fresh and cool to wear
- Very absorbent, fast drying
- Stiffer handle
- Good drape
- Durable
- Creases badly
- Wash and iron

Linen

From the Flax plant

Wool

From animals including Sheep, Llama, Rabbit, Camel

Wool



Properties

- Warm to wear
- Absorbent, dries slowly
- Breathable, repels rain
- Soft or coarse handle
- Can shrink - dry clean
- Good drape
- Not durable
- Creases drop out

Silk

Originates from the silkworm

Silk



Properties

- Warm to wear
- Absorbent
- Soft handle
- Good lustre and drape
- Durable
- Creases drop out
- Dry clean



Produce a chart similar to the 'Natural fabrics' for synthetic fabrics include; Viscose, Acrylic, Nylon, Polyester



What are the differences and similarities between natural and synthetic fabrics? Can you give examples?



Can you name the Fabric embellishments in the pictures provided?

Here are some examples of fabric embellished items.
Fabric Embellishments include; Batik, beading, embroidery, screen printing, direct application (fabric pens, crayons, paints), Applique, heat transfer.

Key spellings

- Textiles
- Natural
- Synthetic
- Decoration
- Embellishment
- Needle
- Applique
- Thread
- Material
- Fibre



Can you spell these words and put them in a sentence?

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NATURAL- Plant/Animal fibres

Natural fibre	Properties	Use
Cotton	Cool, cheap, strong renewable.	Shirts, t shirts, lightweight clothing.
Linen	Renewable, strong, creases easily.	Trousers, shirts, shorts.
Wool	Soft, hardwearing, renewable.	Jumpers, knitwear.
Silk	Expensive, renewable, cool in summer, warm in winter.	Wedding dresses, scarfs.

- Can you identify at least 2 natural and 2 synthetic fibres?
- Can you identify the properties and use of the fibres you have chosen?

- Textiles made from NATURAL plant or animal fibres, such as wool or cotton, are renewable and easily biodegradable.
- Man-made textiles are SYNTHETIC made from oil-based materials, which are non-renewable and harder to degrade when put into landfill.

SYNTHETIC- Man made fibres

Synthetic fibre	Properties	Use
Polyester	Strong and durable but not very absorbent or warm.	School blazer, trousers.
Acrylic	Strong and durable but not absorbent.	Knitwear
Nylon	Very strong, durable but not very warm or absorbent.	Sports wear, fishing nets.



Decoration techniques

SEWING STITCHES

- The straight or running stitch is the basic stitch in hand-sewing.
- The stitch is produced by passing the needle in and out of the fabric at a regular distance.



Cross stitch

Cross-stitch is a form of sewing in which X shaped stitches are used to form a pattern/picture.



- Can you identify the 2 main types of stitches.
- Can you do straight stitch and a cross stitch?

EMBELLISHMENT -A decorative detail or feature added to something to make it more attractive.

Applique

A decoration technique in which pieces of fabric are sewn on to a larger piece to form a picture or pattern.



Batik

A method of producing coloured designs on textiles using wax and dye.



- What is an embellishment?
- Can you identify 2 different ways of decorating a piece of fabric?