

Decoration Techniques



Stencilling



Tie Dye



Batik



Transfer Printing



Block Printing



Laser cutting

some fabrics can be cut or etched using a laser that passes through a small diamond, which focuses the laser beam and intensifies its power so that it can burn through material and cut out 2D shapes

CAM – Computer Aided Manufacture

Designs are produced on the computer using CAD (Computer Aided Design) and then sent to machines for manufacture.



Iron on Transfer Printing

Print images that you have drawn and scanned on to your fabric.



Cutter Plotter –

Cuts PS film and some fabrics to apply to your fabric



Machine Embroidery

Computerised – some machines have stored machines, very expensive professional machines can sew images of you're you have drawn.



Sublimation Printing

Special inks are printed onto specialist paper. This is placed into a hot press, under heat and pressure the inks turn to a gas and transfers onto the fabric as a solid. The design is permanent.

YEAR 9 Design Technology- T-Shirt Printing

CAD & CAM

Many textile and fashion designers use specialised forms of technology such as **computer-aided design** (CAD) and **computer-aided manufacture** (CAM) to speed up the production process, reduce waste, and reduce labour costs overall.



Production Systems – Batch Production

Batch production is a technique used in manufacturing, in which the object in question is created **stage by stage** over a series of **workstations**.



It is manufacturing **set quantities** of **identical** textile products to order in a range of **standard sizes**.

The quantity of products can vary from a set of four cushions made by a designer-maker, to 20,000 jumpers made for a department store.

Workers repeat tasks so can go quicker therefore produce more.

Each batch is completed before the next batch is started.

This system is used for fashion and seasonal items which are regularly changed and aren't required in continual large quantities.

Maths in Textiles - Tolerance in textiles is the amount of acceptable variation from the specified measurement from which you can cut out pattern pieces, add **components** or sew **seams**. It is measured in + or – mm (millimetres)

When a product is made in a batch, it is often far cheaper per product than making just one.

Example

Assume the cost of 1 m² of fabric costs £6.00, and it takes 100 mm × 200 mm of fabric to make one pocket.

Therefore, one pocket not made as part of a batch = £6.00
However, a producer could work out the number of pockets that could be cut out from a 1 m² of fabric.

$$\begin{aligned} 1,000 \text{ mm} \div 100 \text{ mm} &= 10 \\ 1,000 \text{ m} \div 200 \text{ mm} &= 50 \\ 10 \times 5 &= 50 \end{aligned}$$

Therefore, **50 pockets** could be cut from the fabric.

$$\begin{aligned} \text{Batch of 50 pockets} &= 6 \div 50 \\ &= 0.12 \end{aligned}$$

One pocket = **12p** (in batch)

Fabric Properties

Fabric properties are the characteristics of a specific fabric. The properties of a woven fabric are very different to a knitted fabric. We need to understand how fabric behaves and performs to pick the most suitable fabric for the end use. Key properties are: **weight, drape, strength, breathability, durability, softness.**

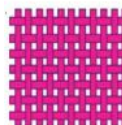
Fabric Construction

Fabric is made by weaving or knitting yarns together.



Knitted

The yarns are knitted together in loops to create a stretchy fabric.



Woven

The yarns are interlaced at right angles creating a strong, stable fabric.

Specialist Equipment

Embroidery machine – computerised embroidery machine automatically sews what you input.



Hot press – an industrial style iron used for transfer printing.



Wax pot – used for melting wax pellets for batik.



Stencil brush – used for stippling fabric paint when stenciling.

Tjanting – used for drawing hot wax for batik.



Laser cutter – a computerized machine that uses lasers to cut a variety of materials including fabric, wood and plastic.

