

# CULTURAL DESIGN

## Technology push

Research and development is done by companies, often into innovative technology. It usually does not involve any market research. The company then markets the product.

## Research and Development

New invention/product  
↓  
Introduced to the public



## Market pull

There is a need/requirement that comes from consumers (market place). This puts pressure on manufacturers to fulfill that need and create new or updated products/services. Look at how many products the smartphone has replaced.

## Market research

Research helps designers analyse and identify the market need for a product, the competition and the customer base. Information can be gathered using interviews and questionnaires and analysed using averages.

Add the numbers together and divide by the total number of numbers.

$$\frac{M + e + a + n}{4}$$

The value that occurs the most often.

Mode  
Most

Place a set of numbers in order, the median is the middle one.

Median

The amount between the upper and lower limit.

Range

## Cotton From fibre to fabric

**Harvesting**  
Fibres inside cotton bolls are stripped

**Ginning**  
Cotton is dried out and the fibre is separated from the seeds

**Fibre bales**  
Cotton fibre compressed into bales and delivered to a mill

**Spinning**  
Individual strands of cotton are twisted together to create a yarn.

**Weaving or knitting**

**Dyeing**  
Fabric put in a hot dye solution then squeezed through rollers.

## Properties of cotton

- Warm
- Comfortable
- Strong
- Flame resistant
- Creases easily
- Absorbent
- Elastic
- Durable

Woven textiles	Knitted textiles	Non woven or bonded
Fabrics made from interlocking yarns that run from top to bottom (warp) and right to left (weft). Made on a loom.	Made from a single interlocking yarn. Construction allows fabric to stretch	Brushed or compressed fibres. Bonded or fused together with chemicals or heat.
Hard wearing, frays when cut, most common weave, variety of weights available, breathable	Stretchy and absorbent, unravels easily, thermal properties, loses shape easily without elastane (lycra), prone to shrinking	Non-elastic, does not fray, easy to shape and mould, additional properties such as waterproof or sterile, lacks strength

## Culture

Culture is the ideas, beliefs, customs & social behaviours of people. Designers have to be aware of the society & culture around them. Some areas of the world are dominated by one culture. This may be seen easier to design for as there will be less diversity however they will only be able to sell a more limited range of products. In the UK, especially in some cities, there is a very diverse mix of cultures. Making products to sell in these markets can be difficult too. You have to consider how to make them an inclusive design.

## Hydrochromic inks

Inks change colour when exposed to liquid. Can be used on roads, clothing, cars and more.



## Micro-encapsulation Aroma pigments

Microscopic bubbles, within the fabric, hold aroma. This is released when agitated. It loses its effect after several uses. Good for active wear and socks.



Smart materials