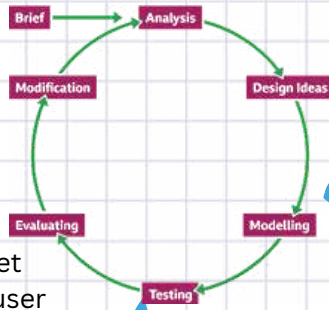


# YEAR 8 TEXTILES KNOWLEDGE ORGANISER

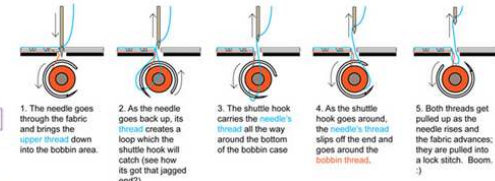
## Iterative Design Cycle

Iterative design is a circular design process that models, evaluates and improves designs based on the results of testing



- When you have finished
- ❖ Raise the presser foot
  - ❖ Take out your work
  - ❖ Pull the threads long again
  - ❖ Cut of your work

## Health & Safety



**Computer aided design - CAD** is used for exploring, designing and editing designs on the computer to visualise concepts through rendering and simulating them to see how they perform in the real world

**Computer aided manufacture - CAM** software is used to programme and control computer-aided machinery to automate the manufacturing process. Once the designs are finished in the CAD process, CAM software uses them to create instructions that drive operated machinery, in order to mass-produce a product.

## CAD/CAM

## Market Pull

**Market Pull** is the need/requirement for a new product or a solution to a problem, which comes from the market place.

## Technology Push

**Technology push** is when new discoveries lead to the development of a product.

## Planned Obsolescence

**Planned obsolescence** is the practice of designing products that will have a limited life and that will become obsolete and require to be replaced, such as disposable razors. Modern mobile phones are a good example as they need continual software upgrades and they are soon replaced by new better-performing models. Planned obsolescence is generally bad for the environment as it creates more waste.

## User Centred design

User-centred design bases the design of a product around the needs of the target market rather than the continual development. The user is questioned and consulted throughout development, and evidence is gathered through questionnaires, interviews, testing and observations, and the results are used to improve the product.

## Scales of Manufacture

**One off production** - These products are expensive at cost price, sometimes bespoke, and often take a long time to make and cost of materials & labour are high. Many prototypes are 'one off products'.

**Batch production** - these products are identical and produced in small batches, daily, weekly, monthly or when needed. They can range in cost priced. Production normally runs from between 2 - 10k.

**Mass production** - These products are produced in very high volumes, 10k +. They are normally products that are in high demand and can range in expense, cars are a good example.

**Continuous production** - These items are normally very cheap to but make and could be considered 'throwaway'. These factories are often found in developing countries where land for factories and equipment are cheaper.

**Just in time production (JIT)** - This scale of production relies on the product been manufactured to a time schedule. This allows raw materials to be delivered at an exact time for production and then manufactured and are shipped straight to distribution/retailers. Apple INC uses JIT production.

## Knowledge

- Health and safety
- Iterative design cycle
- User centred design
- Culture
- How designers consider culture
- Technology push & Market pull
- Planned obsolescence
- Scales of Manufacture
- CAD/CAM

## Culture

Many countries now have a diverse range of cultures, so it has become important for designers to consider a range of cultural beliefs when designing for the mass market. For instance, clothes designers might incorporate designs into their collections that allow customers from other cultures to dress more modestly, or cosmetics manufacturers may choose not to use animal ingredients in their products because of people's beliefs

