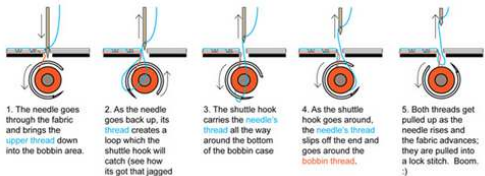


# YEAR 9 TEXTILES KNOWLEDGE ORGANISER

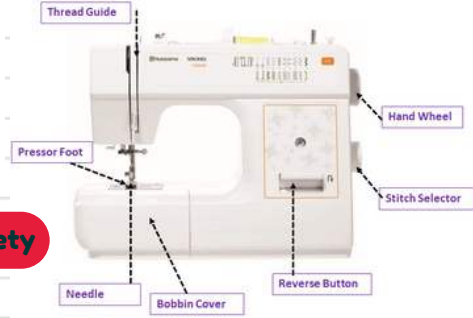


Ethical fashion  
Eco fashion  
Green fashion



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

## Health & Safety



Use **ACCESS FM** to help us write a **specification** - a list of requirements for a design - and to help us **analyse and describe** an already existing product.

**ACCESS FM - Helpsheet**

**A** is for **Aesthetics**  
**C** is for **Cost**  
**C** is for **Customer**  
**E** is for **Environment**  
**S** is for **Size**  
**S** is for **Safety**  
**F** is for **Function**  
**M** is for **Material**

**Aesthetics** means what does the product look like?  
What is the Colour? Shape? Texture? Colour? Appearance? Feet? Weight? Size?

**Cost** means how much does the product cost to buy?  
How much does it cost to buy? Can it be made?  
How much is the different materials cost? Is it good value?

**Customer** means who will buy or use your product?  
Who will buy your product? Who will use your product?  
What are their Age? Gender?  
What are their: Size? Outlook? Needs? Preferences?

**Environment** means will the product affect the environment?  
Is the product Recyclable? Biodegradable? Environmentally friendly? Recycled? Recycled? Recycled? Recycled?  
What are the Design Issues? Energy? Weight? Aesthetics? Texture? Balance?

**Size** means how big or small is the product?  
What is the size of the product in millimetres (mm)? Is it the same size as something else? Is it possible to be made? Is it? Would it be required? Is it too big or small?

**Safety** means how safe is the product when it is used?  
What is the risk of the product? Can it be used? Can it be used? Can it be used? Can it be used?  
What is the correct and safe way to use the product? What size should it be? What is the correct and safe way to use the product? What size should it be? What is the correct and safe way to use the product? What size should it be?

**Function** means how does the product work?  
What is the product's job and what is it? Why were these systems used? Would a different material be better? What is the product made of? What manufacturing techniques were used?

**Material** means what is the product made out of?  
What materials is the product made from? Why were these materials used? Would a different material be better? What is the product made of? What manufacturing techniques were used?

Product analysis allows designers to understand how products work and how they could be improved. This then helps them to produce better designs of their own. In this activity learners will learn about two techniques that are commonly used to analyse existing products – the 5 Ws and ACCESS FM

Finite resources are ones which are in limited supply or that cannot be reproduced. Non finite resources are ones which are in abundant supply and are unlikely ever to be exhausted, or ones that can be grown and replaced at the rate they are being used.



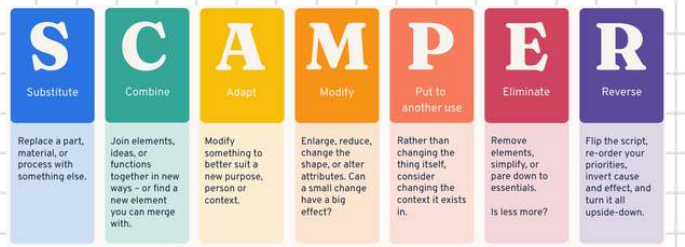
## Sustainability



## Product Analysis

## Product Development

Design and development involve creating working drawings and parts lists to enable a third party to manufacture the design.



## Ecological & Social



Bamboo is a sustainable source for fibres.

Bamboo fibres are fantastic for clothing. They have hollow fibres giving it breathing capabilities. The fibre is filled with micro holes which allow for better moisture absorption and ventilation than some other fibres.

What makes bamboo sustainable?

- **Fast** growing grass - 3 months instead of 30 years.
- Bamboo needs **no fertiliser** or **pesticides** to grow.
- Bamboo **self regenerates** from its roots, so it doesn't need to be replanted.
- Bamboo is much **less costly** to produce and products are biodegradable.



Ecological issues such as farming and drilling for raw materials. A company's social footprint measures their effect on people and communities. This can be in terms of employment as well as the amount of noise a factory makes



## Production methods

## Components and stock forms

**Flexible manufacturing systems (FMS)** are a series of different machines producing different parts for a product. The system is flexible because, at any time, machines in the process can be Reprogrammed to change their task and production can be changed to produce more or fewer parts without stopping the other areas of the process.

**Just in time (JIT) manufacturing** is triggered by a customer order. The correct amounts of materials are ordered in to cover the order, and these arrive just as they are needed by production. This saves money on storage, reduces waste and ensures there is no money wasted producing stock that will remain unsold. There are disadvantages to the system in that, if any part of the product cannot be sourced, clients have to wait for their order to be produced.

**Lean manufacturing** is a Japanese concept, based on minimising costs and maximising efficiency by cutting down on waste and the amount of materials and energy used in production. This is done by adapting designs and making changes to the production process. For example, to reduce waste, a packaging net could be redesigned to include a tessellating pattern or, to improve efficiency, changeover times between production runs could be reduced.

**Standard Components**

There are a range of standard components that can be used with textile-based materials, either to improve functionality or for aesthetic reasons. This includes the following fastenings.

**Zips**  
Zips are devices used to fasten two sides of a fabric together. They can be open (like on a jacket) or closed (like on a pencil case) and can be made of metal or plastic.

**Teeth** - Interlock to open or close both sides of the fabric.  
**Slider** - Joins the teeth when open or separates them when closed.  
**Tap** - Usually made of polyester; comes in a range of colours.

**Press Studs**  
Press studs, or poppers, are small, round fasteners. They are pressed together to pop into place and hold fabric together.

**Velcro**  
Velcro® is a simple and quick way to fasten fabrics. It consists of two halves; one with thousands of tiny hooks and the other with tiny loops. Pressing each half together fastens the Velcro tightly.

**Buttons & Toggles**  
Buttons and toggles are sewn onto the fabric and then fed through a buttonhole or loop to fasten the fabric.