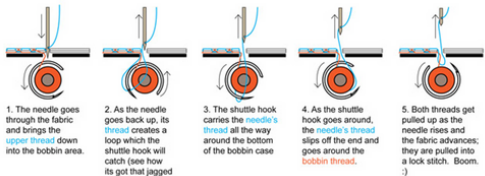


YEAR 9 TEXTILES KNOWLEDGE ORGANISER



Ethical fashion
Eco fashion
Green fashion



When you have finished

- ❖ Raise the presser foot
- ❖ Take out your work
- ❖ Pull the threads long again
- ❖ Cut off your work

Sustainability



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.

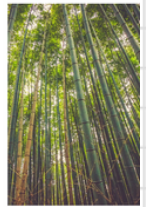
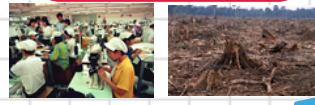
Bamboo is a sustainable source for fibres.

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.

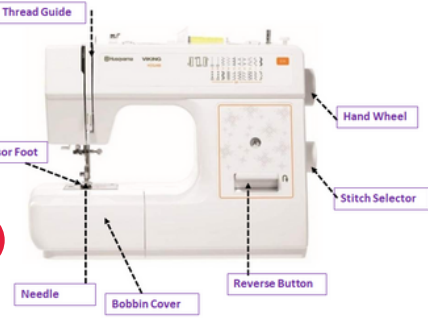
What makes bamboo sustainable?

- **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 & Social



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



Health & Safety



Production methods

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.

We 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.

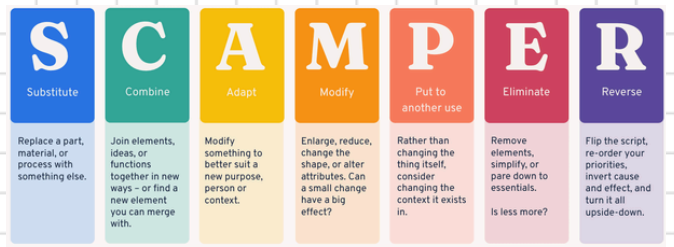
ACCESS FM - Hellsheet

A is for Aesthetics	Aesthetics means what does the product look like? What is the Colour? Shape? Texture? Pattern? Appearance? Weight? Size?
C is for Cost	Cost means how much does the product cost to buy? How much does it Cost to buy? Cost to make? How much do the different materials cost it a good value?
C is for Customer	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: Likes? Dislikes? Needs? Preferences?
E is for Environment	Environment means will the product affect the environment? Is the product Recyclable? Biodegradable? Sustainable? Environmentally friendly? Good for the environment? It's a Design Strategy / Feature / Benefit / Feature / Benefit / Feature
S is for Size	Size means how big or small is the product? What is the size of the product in millimetres (mm)? Is this the same size as similar products? Is it comfortable to use? Does it fit? Would it be improved if it was bigger or smaller?
S is for Safety	Safety means how safe is the product when it is used? What is the risk for the user and what can they do to prevent harm? What is the correct and safer way to use the product? What are the risks? What does it do? How could it be improved? Why is it used this way?
F is for Function	Function means how does the product work? What is the products job and what? What is it needed for? How will it do its work? How could it be improved? Why is it used this way?
M is for Material	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 are the product made? What manufacturing techniques were used?

Product Analysis

Product Development

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



Components and stock forms

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.
Tape - 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.