

Faculty of Technology – Summative Assessment

Subject: Year 7/8 Textiles (Mrs Dunn)

If you studied **Textiles** during the two Easter to Summer Terms in lockdown, you will be assessed on the following topics when you return to college in September.

Topics to be Assessed:

1. **Fabrics and fibres:** be able to name two types of fibre produced from a natural source and what that source is; polyester fibre made using man-made/synthetic resources and what the original sources are; viscose – a fibre made using a combination of natural and synthetic resources (know what those sources are); know the difference between a fibre, a yarn and a fabric; be able to name a woven fabric, a knitted fabric and a 'bonded' fabric.

2. **Sewing Equipment & some Haberdashery:** smaller textiles equipment, what it's used for & what haberdashery means, with examples.

3. **Patterns/templates:** their use in textiles, to include: placement of pattern on fabric; grain of fabric, grain line, bias & selvages; pattern markings & their meanings; transferring markings to fabric; cutting out of pattern and fabric.

4. **Hand stitching:** functional & decorative uses or a combination of each; running stitch (also known as basting or tacking, when used to temporarily hold textile items together), back stitch, chain stitch, blanket stitch, 'stem stitch', 'lazy daisy' and 'French knot'.

5. **The Sewing Machine, Machine-Sewing & Terminology:** some knowledge of parts of the sewing machine and their functions; know what a '**seam**' is and what it does; know what the term '**seam allowance**' means, why it is important and how to keep an accurate seam allowance when sewing on the machine; know what the '**presser foot**' is & that it **MUST** be down when sewing using the machine & why; know to **backstitch** at the beginning and end of woven seams & why.

6. **Care of textile items:** know and understand the laundry symbols found on textile product labels; understand what is meant by 'A stitch in time saves nine!'.

Resources to Help You:

1. Fabrics and Fibres:

Linen: <https://youtu.be/LNDbINF6Vew>

Cotton: <https://youtu.be/QHgNoSYIhYs>

Wool: From Fibre to Garment video. Access via Okehampton College website homepage – Sharepoint – Focus E-Learning software – Video Library – Textiles Technology – Wool From Fibre to Garment

Polyester fleece: <https://youtu.be/T29w8KkFaV0>

Viscose: <https://youtu.be/zcxcPVX5ejY> and <https://youtu.be/5QFOnZ3TLHQ>

2. Small Sewing Equipment:

Image taken from 'A Little Course In Sewing' by Dorling Kindersley

Essential Equipment



Scissors - Choose good quality, full-size dressmaking scissors with comfortable handles and strong stainless-steel blades. Even if you don't plan to do any dressmaking, you will get a cleaner cut in any fabric with large scissors.

Scissors - A smaller pair of lace or machine embroidery scissors is also useful to keep next to your machine. The type with curved points are invaluable for reaching under the presser foot to snip off loose threads.

A Wide Tape Measure If you buy one in a bright colour with large inch and centimetre markings, in either a 60 or 90 inch length, you won't spend half the day looking for it. Make sure it has metal-bound ends to prevent fraying.

Standard and Long Pins Choose a pack of standard dressmaking pins and one of long, slim-shank, quilting pins with flat, colourful heads and you'll be ready for anything. There is a huge variety of pins available but it is just not necessary to buy different pins for every different project.

Seam Ripper - Make sure it has a sharp point and blade and a close-fitting cover which will slide onto the handle when the ripper is in use. Keep the ripper blade covered when not in use in case you inadvertently pick it up by the wrong end.

Tailor's Chalk - Choose a good quality tailor's chalk in a triangular 'cake' form... if you can find it. These last for ages and can be easily sharpened to an 'edge'. There are chinks available in pencil form, but these wear down very quickly.

Pack of Needles - Choose a pack of good quality sewing needles (sharps) of varying lengths. There are 'easy-thread' needles available now with open eyes to slot the thread in but, unless you use a thimble these are very hard on the fingers.

Metal Thimble - These can take a bit of getting used to if you've never used one before but are invaluable for tough hand-sewing jobs.

Pincushion - Try and find one that has feet and is filled with sawdust rather than wadding as this won't roll around on your work-table and the sawdust will help keep your pins sharp.

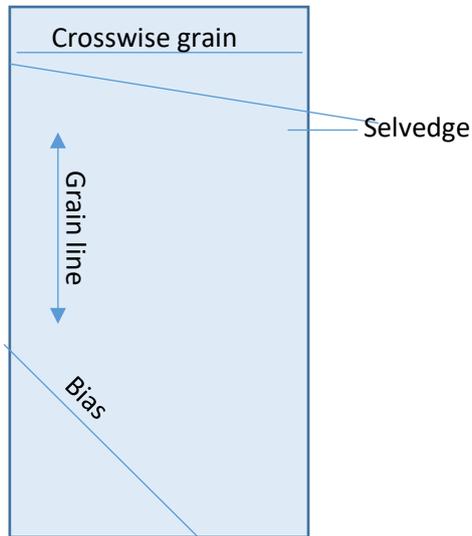
3. Patterns/templates:

GRAIN - The grain is created when fabric is woven. The grain parallel with the selvedge is the warp; the grain across the width of the fabric is the weft.

GRAIN LINE – A line marked on a paper pattern to show the direction of the grain. This line should be parallel to the selvedge edge of the fabric.

SEAM ALLOWANCE - The narrow strip between the line of stitches joining a seam and the edge of the fabric.

SELVEDGE - The neatened edge on a length of fabric. A roll of fabric has one on each long edge to prevent it from fraying. It is parallel to the warp grain.



4. Hand stitching videos:

'Running stitch' (also basting or tacking stitch) – <https://youtu.be/W4nhj8kMpAI>

'back stitch' – https://youtu.be/rZ_wVC84UmM

'Chain stitch' - <https://youtu.be/KP3q3H5bnf8>

'blanket' or 'buttonhole stitch' - <https://www.youtube.com/watch?v=Wcf9iJHST94>

'French Knot' - <https://www.youtube.com/watch?v=W1Cq24d5-8s>

'stem stitch' - <https://www.youtube.com/watch?v=TebgWq9AqyY>

Hand stitching in pictures and words:

RUNNING STITCH - A basic straight stitch made by hand or machine for joining seams, mending, tucking and gathering.

TACKING /BASTING - Hand running stitches that attach a seam temporarily before it is machined together.

BACKSTITCH - A strong stitch with a double stitch on the wrong side. Good for repairing and sewing seams as well as for decoration.

5. Machine sewing:

This is the machine used at school: <https://youtu.be/mPi9ZTNAKCA>

The machine is set up like this: <https://www.youtube.com/watch?v=-CYhu1RpxaQ>

Part 1 of review: https://youtu.be/uTPj_gcm5IM

Part 2 of review: <https://youtu.be/LByYwTa7qWw>

Seams Seams are an essential part of the construction of a garment and they will vary according to where they are in the garment and the weight of the fabric. The width of the seam may vary, too, depending on where it is. Clothing patterns usually give a 1.5cm ($\frac{5}{8}$ in) seam allowance, although on some occasions it may be less or more. It's always a good idea to check before you start sewing.

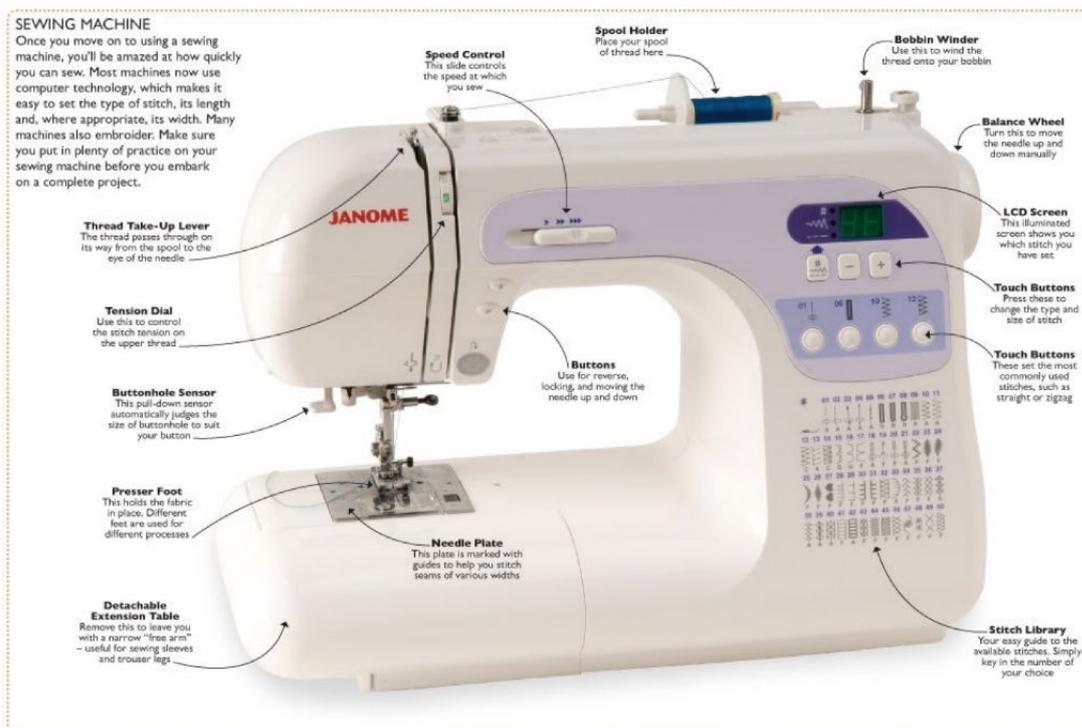
Pinning - the pieces of fabric to be sewn together are usually pinned, then 'tacked' and then machine sewn (once the pins are removed).

Tacking - Tacking is a form of basic hand stitch used to attach two pieces of fabric after pinning them together and before machine-stitching the join. Start each seam line with a couple of back stitches to secure the thread.

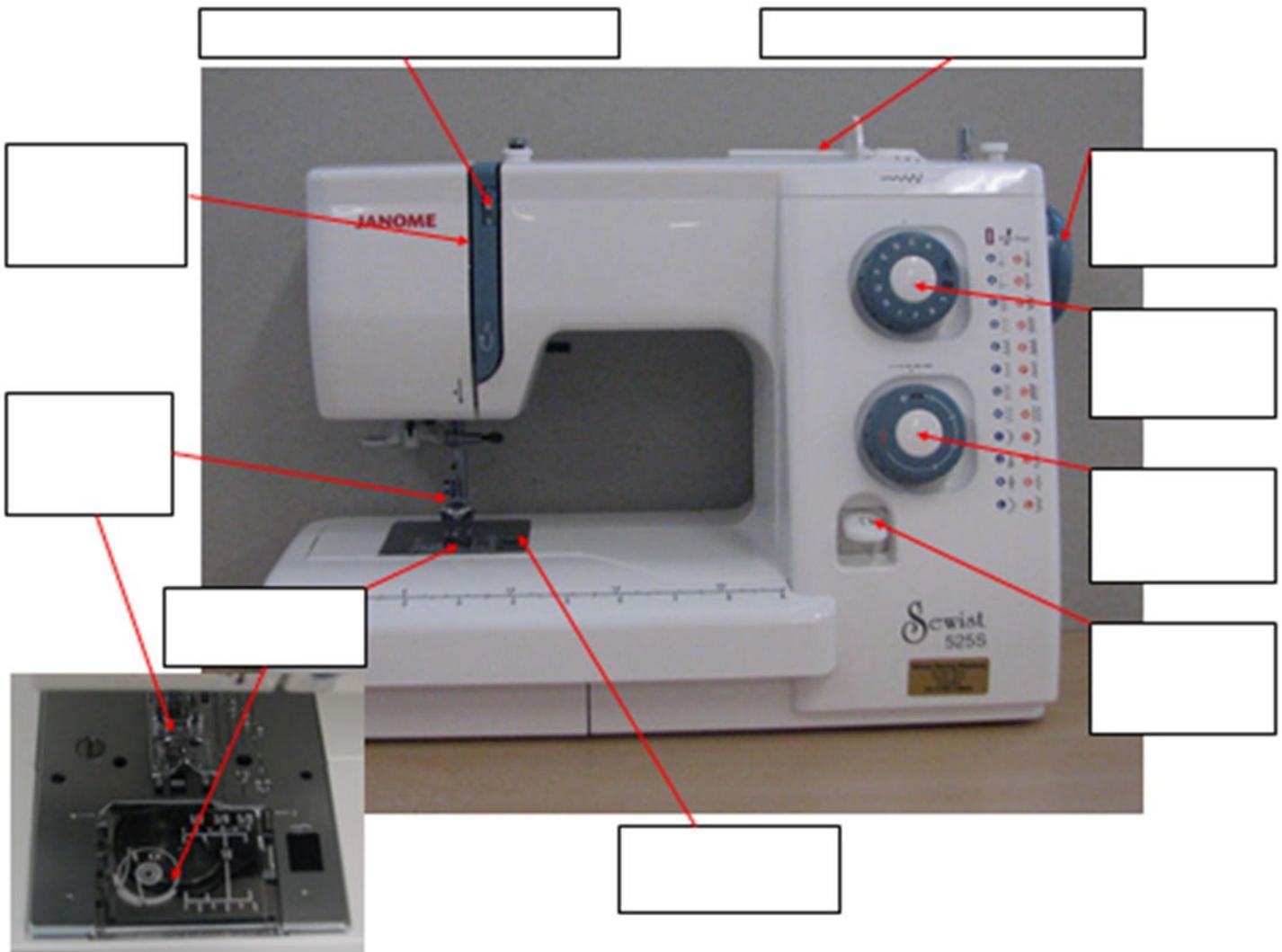
Once you've secured the end of the thread, stitch small even stitches, about 1cm ($\frac{1}{2}$ in) wide, to attach the two pieces of fabric prior to machine-stitching. Secure the end of the seam with a couple of stitches, as you did at the start.

Plain Seam - This is the most commonly used seam for attaching parts of a garment or other items. It can be used on most fabrics and can be opened out and pressed flat for a strong, smooth finish. 1. Pin and tack your two pieces of fabric right sides together, then machine-sew along the fitting line, using medium-sized stitches. 2. Press the seam open. 3. Neaten the edges with edge stitching (top seam) or narrow binding (bottom seam).

Martin, May. May Martin's Sewing Bible e-short 6: Tips & Tricks for the Experienced Sewer . HarperCollins Publishers. Kindle Edition.



An example of what you may be asked to do in your test.



Name the parts of the sewing machine by using the words below to label the picture above.
Copy the words into the spaces OR, cut out the words and glue them in the spaces.

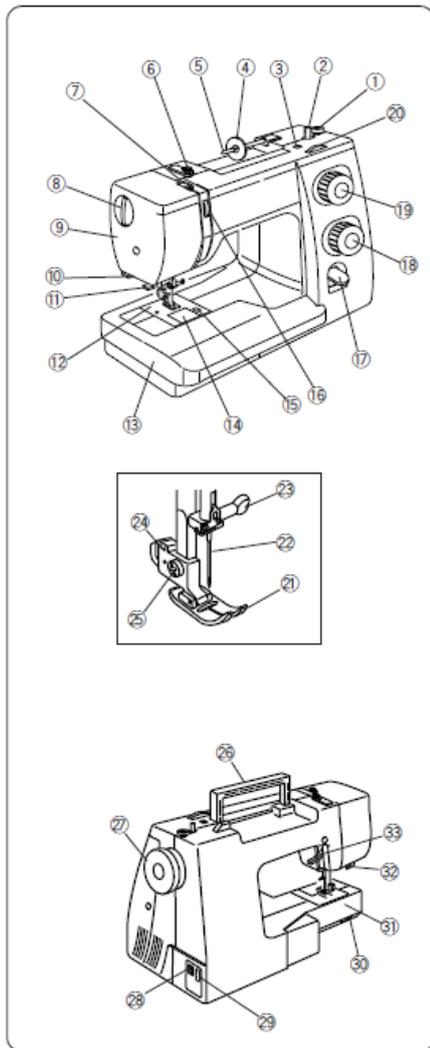
Thread holder	Presser foot	Stitch length	Footplate	Take-up lever
Reverse lever	Stitch style selector	Hand wheel	Bobbin holder	Top stitch tension

SECTION 1. KNOW YOUR MACHINE

Names of Parts

- ① Bobbin winder stopper
- ② Bobbin winder spindle
- ③ Hole for additional spool pin
- ④ Spool holder
- ⑤ Spool pin
- ⑥ Bobbin winder thread guide
- ⑦ Thread take-up lever
- ⑧ Foot pressure dial
- ⑨ Face plate
- ⑩ Thread cutter
- ⑪ Needle threader
- ⑫ Needle plate
- ⑬ Extension table (Accessory storage)
- ⑭ Hook cover plate
- ⑮ Hook cover plate release button
- ⑯ Thread tension dial
- ⑰ Reverse stitch lever
- ⑱ Stitch length dial
- ⑲ Pattern selector dial
- ⑳ Stitch width dial
- ㉑ Presser foot
- ㉒ Needle
- ㉓ Needle clamp screw
- ㉔ Foot holder
- ㉕ Setscrew
- ㉖ Carrying handle
- ㉗ Handwheel
- ㉘ Power switch
- ㉙ Machine socket
- ㉚ Drop feed lever
- ㉛ Free-arm
- ㉜ Buttonhole lever
- ㉝ Foot lifter

You only need to learn the ones marked.



6. Care of textile items:

See next 3 pages.

Laundry Symbols and Their Meanings

(Taken from: <https://www.supersavvyme.co.uk>)

Washing symbols

This group of symbols lets you know if your garment is safe to put through the washing machine, or if it needs more delicate treatment.



Tub with wavy water:

This means it is safe to machine wash. The number inside the tub signifies what temperature you should wash the garment at. If the tub has a cross through it, that means do not machine wash.

Tub with peaked waves:

If it has one line drawn beneath it, this means you must wash this garment on a synthetic cycle. With two lines beneath it, it should be a wool wash.

Tub of water with a hand in it:

Hand wash only.

Circle:

Dry-clean only. The circle will probably have a letter in it, which tells the dry-cleaner what solvent to use. If the circle has a cross through it, the item should not be dry-cleaned.

Drying symbols

These symbols will help you avoid items shrinking or becoming misshapen when drying.



Square with circle in it:

This means the item can be tumble dried. If there is a dot in the middle of the circle, it must be done on a low heat. Two dots mean it can be dried on a high heat. If there is a cross through the symbol, the item should not be tumble-dried.

Square with lines:

If the square has three vertical lines in it, this means you should drip dry the item. If it's one drooping line hanging from the top, this means hang to dry. If it has one horizontal line in the middle, this means dry the garment flat.

Ironing and bleaching symbols

These symbols will stop you from fading colours or doing any damage when ironing.



Triangle:

A triangle symbol means 'bleaching allowed', so one with a cross through it means 'do not bleach'. One with diagonal lines means use non-chlorine bleach only.

Iron:

The dots in the iron symbol show the temperature you should iron the garment on.

So, one dot = cool, two dots = medium, three dots = hot.

The cross through the iron means – you guessed it – do not iron.

So now you know!

Looking at fibres and fabrics

Objectives

In this lesson you will:

- find out what fabrics are
- learn how fabrics are made.

Key words

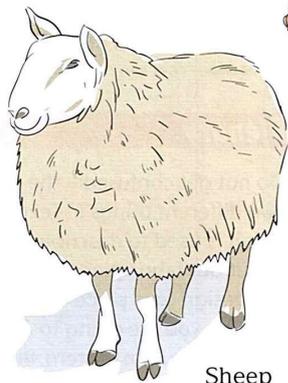
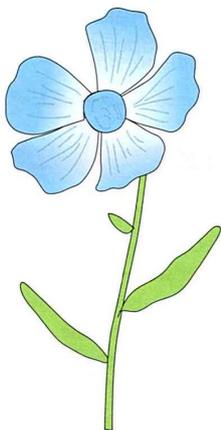
fibre	the smallest part of a fabric
staple fibre	a short fibre
continuous filament fibre	a very long fibre

Close your eyes for a minute and imagine a life without any textile products. Think about sleeping without any bedding or having a bath without a towel, living without any clothing or travelling in a car with out seats or tyres! Would life be easy?

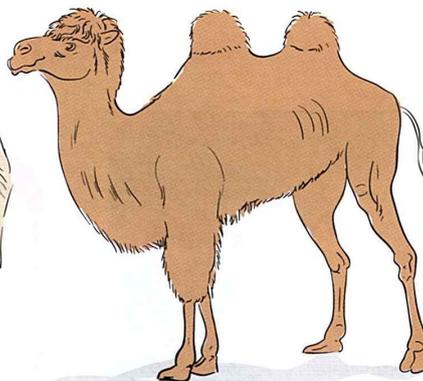
Where do fabrics come from?

Fabrics are manufactured from a **yarn**, which is made from **fibres**. A fibre is the smallest element of a fabric; it looks rather like a human hair. Fibres come from several different sources; they can be either natural or manufactured. Natural fibres come from animals or plants.

Flax plant



Sheep



Camel

Cotton plant



Manufactured fibres come from two different sources. They can be made from minerals such as oil or coal, or they are natural fibres which have chemicals added to them. These fibres are referred to as regenerated cellulose fibres. For example, rayon, wood pulp or cotton waste (cellulose) are mixed with chemicals to manufacture regenerated fibres.

How are fabrics made?

Before a fabric can be manufactured, a yarn has to be produced. Yarns are made from fibres. Each fibre has its own set of properties, and each method of making a fabric has its own set of characteristics. The fibre and a method of making a fabric combine together to produce fabrics that are suitable for very different uses. There are three main methods used to manufacture fabrics:

- weaving
- knitting
- bonding.

Natural fibres are usually short and known as **staple fibres**. Manufactured fibres are very long and are known as **continuous filament fibres**. **Micro-fibres** are fibres that are manufactured so they are ten times finer than a human hair. These fine fibres are used to make modern fabrics, often from a manufactured source, such as Tencel.

A Natural fibres come from animals or plants

Weaving – a woven fabric is a strong fabric

Woven fabrics are made from weaving two yarns together, using a loom. The yarn that is used from the top to the bottom of the loom is the warp thread. The yarn that goes under and over the warp yarn is known as the weft thread. Where the weft thread turns around at the edge of a fabric it is known as the selvedge.

B



Knitting – a knitted fabric is a stretchy fabric

Knitting is forming loops on a set of needles and pulling a thread through the loops. There are two main methods of knitting.

- Weft knitting is where loops interlock across the width of the fabric.
- Warp knitting can only be produced on a knitting machine. This is where the yarns themselves are interlocked along the length of the fabric and both sides of the fabric look identical.

C



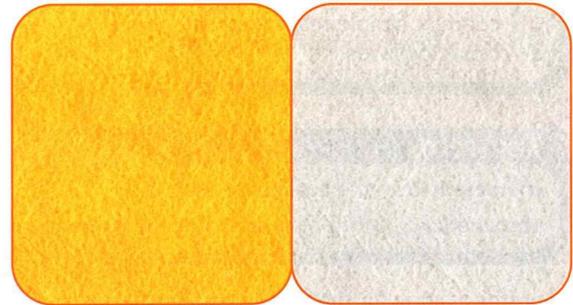
Fabric	Fabric pulled vertically	Fabric pulled horizontally	Fabric pulled diagonally
Woven	Stays firm		
Knitted			
Bonded			

E Characteristics of fabrics

Bonding – a bonded fabric is a weak fabric

Fibres are bonded together by heating, gluing or stitching the fibres together. A bonded fabric has no weft or warp threads and no right or wrong side. They are usually inexpensive fabrics that do not fray, such as felt or stitch and tear vilene.

D



Think about it!

- 1 **TS** Take a piece of yarn and unravel the yarn to examine the fibre.
 - a) What does the fibre look like?
 - b) How long is the fibre when unravelled from the yarn?
 - c) Is the fibre a short staple fibre or a long continuous filament fibre?
 - d) Think about your findings. Can you now say what fibre your fabric has been made from? Is it a natural or man-made fibre? Why do you think so?
- 2 **TS** Take 10cm × 10cm pieces of woven, knitted and bonded fabrics and conduct the following tests.
 - a) Pull each fabric sample vertically, horizontally and diagonally. What happens?
 - b) Record your findings on a table like the one in E.
 - c) Why do you think this information is important when you are looking at fabrics?

Plenary

Fabrics can be grouped according to the fibres they are made from or how they are made. To understand why fabrics behave in the way they do, you need to understand what fabrics are made from and how they are made.