This theme is designed to complement the secondary design and technology curriculum and aims to give students an insight into the production process from raw fleece to finished garment. It aims to allow pupils to collect, collate and present information in an appropriate form – to present to others. The package also aims to encourage collaborative working between students.

In addition, the package asks pupils to think about fashion and how it has evolved over time. In particular, relating to gentlemen’s fashion as this was the primary product of a number of Leeds based companies like Burtons, Blackburns and Hepworths who contributed largely to the success of industrial Leeds.

The whole textiles process is illustrated in the Learning Pack Introduction. Some of the key parts of the process are:

**Carding**
The fleece is combed, this is known as carding. This makes the fibres in the wool run in the same direction, to help later with spinning. Carding used to be done by hand, but the carding machine makes the process much quicker.

**Spinning**
The carded (combed) fibres are twisted into long threads ready for the next process – weaving. Again this used to be a hand process, people worked at home to do this. In the 19th century a man called Crompton invented a machine called the Mule. This made the work much quicker, the
factory was created and home workers now had to work in the new system.

**Weaving**

Weaving is done on a **Loom**. As with spinning this was originally done at home. Working from home was known as the Cottage Industry. Workers would take their finished pieces of woven cloth to the Cloth Halls to sell their product. The Cloth Halls were like markets for cloth and there were many in Leeds. One example still exists as a building in Leeds City Centre but is not used to trade cloth any more. This is the White Cloth Hall behind the Corn Exchange on Boar Lane which has been redeveloped to accommodate new businesses. **You might ask students to try to find out where it is.**

Just as with spinning, bigger and quicker looms were invented which meant that they had to be placed in factories. Again, weavers could not work from home and had to start factory work.

**Making the woven cloth into a finished garment**

In the tailoring trade, clothes are made to fixed sizes. The clothes which you are wearing will have come in a certain size. For example, when you buy trousers or a skirt you take the waist size which is the nearest best fit.

This **standardisation** is needed in order that items can be **mass produced**. In a tailoring factory clothes are cut to set pattern shapes. You can see these paper patterns hanging in the tailoring workshop. Here you will see a machine which cuts the cloth for individual parts of each item of clothing which is to be made. The parts are then **assembled** at the sewing machines.

**PRE VISIT ACTIVITIES**

Discuss the following in class:

What is a process? Ask pupils to think of examples of different processes in small groups which they could then present to the class. This does not have to link to textiles or technology but could link to processes that they are involved in or witness more frequently e.g. how a hamburger in a fast food restaurant is made.

Ask pupils what they think it will be like and what they might find in a Woollen Mill. There is an opportunity to discuss citizenship issues here in working conditions, the make up of the workforce with children working in the Mills and the immigration of Jewish workers.
Investigate! From Fleece to Fashion (continued)

GALLERY ACTIVITIES

Investigate! From Fleece to Fashion
Pupils should be split into groups and given the enclosed ‘investigation’ brief. Pupils should be given 45 minutes to tour the Galleries and 45 minutes to write up their observations and collect further evidence.

Groups should be allocated a teacher or support assistant to tour the Galleries with.

Materials you will need:
- Copies of the Process worksheet Note: please photocopy both sides of the sheet side by side on A3 paper (side 1 on the left, side 2 on the right) and bring with you on your visit
- Clipboards
- Pencils

Pupils could use digital cameras or mobile phones to take images and video clips of the different processes and machinery in the Mill.

POST VISIT ACTIVITIES

Presentation (ICT)
Using the information pupils collected in the Museum, pupils should put together a presentation using ICT. This could be in an application like PowerPoint for example.

The presentation should break down the processes to make them easy to understand by other students. They could use evidence and pictures they have collected at the Mill and supplement it with information from other sources such as the Internet.

A Gentleman’s Wardrobe (History/ICT)
Ask pupils to create a timeline using spreadsheet software to illustrate the information given to them in the resource ‘From Montague to Man Bags’. This document focuses on the various fashions and trends that have affected the male wardrobe since the 19th century.

Pupils could adapt the timeline to include some other trends that they may feel have been influential and could use images from the Internet to enhance their timeline and make it more visually stimulating.

Evaluation
A sheet is provided to prompt pupils in the development of their evaluation.
From Montague to Man Bags
A Gentleman’s Wardrobe Timeline 1850-2007

1850s  John Barran starts the ready made clothing industry in Leeds
1860s  Prince of Wales makes tartan trousers popular
        Dressing gowns introduced
1880s  Oscar Wilde promotes Dress Reform and relaxing clothes
        Hepworths and Blackburns open shops to sell their suits
        Heavily advertised Virginia cigarettes arrive from America
1890s  Toothpaste available in tubes
        Pointed shoes and ‘rolled’ trousers popular
        Knickerbocker Suits developed for outdoor use
1901   King Edward VII proclaims ‘gentlemen, you may smoke!’
1904   Gillette produce 90,000 safety razors and 12,400,000 blades
1907   L’Oreal produce the first permanent dye for grey hair
1938   Nylon toothbrush invented
        Philishave electric shaver invented, with rotary blades
1940s  Montague Burton is Europe’s largest clothing producer
        Black marketers adopt colourful and wide lapelled ‘Spiv’ style
        All ex-servicemen given de-mob suit
1950s  Military clothing like T Shirts, duffle coats and leather jackets adopted as civilian classics
        Electric trouser presses available
1956   Ericsson’s first mobile phone weighs 9kg
        Elvis Presley gives the world ‘Heartbreak Hotel’ and his quiff
1960s  ‘Lady Chatterley’s Lover’ on trial as an obscene book
        The Hair Dryer becomes a male fashion accessory
        Open toe sandals, flares and long hair in fashion
1970s  Afro styles, open shirts and medallions popular
1975   Bic invent the disposable razor
1976   Punk rock fashion shocks the nation
1979   The first commercial cellphone system opens in Japan
1980s  ‘Yuppy’s’ make suits and mobile phones popular
        Trainers and sports wear become acceptable street fashion
1990s  Grunge makes dressing down fashionable again
2002   The Hoody starts to emerge as a fashion item imported from the US associated with
        Hip Hop and Rap Culture. The craze mushrooms but with negative press, resulting in
        David Cameron’s ‘Hug a Hoodie’ Campaign
2003   Pop artists such as Beyonce and 50 cent, break onto the scene on a large scale,
        adorned in diamonds and gold, coining the fashion and phrase ‘Bling’
2005   Male model Vernon Kay emerges as the first male model/celebrity, although female models
        like Twiggy have been crossing the boundary since the 1930s
2006   The ‘Man Bag’ makes an entrance with celebrities like David Beckham sporting
        a Louis Vuitton clutch bag
Looking at the different processes that are on display in the Mill, put the following processes in order (1 to 11) and add a short description or draw a small diagram in the space underneath.

The processes are:
- Fulling
- Weaving
- Washing & Scouring
- Carding
- Spinning
- Sewing
- Shearing & Grading
- Producing Wool
- Finishing
- Blending & Dyeing
- Cutting
You will be visiting Leeds Industrial Museum at Armley Mills, which was once the largest woollen mill in the world. Armley Mills is now a Museum where examples of the original machinery involved in the textiles process remains on display in the building.

You are being challenged to investigate the textiles process and present it in a way that is easy to understand by other young people.

- You will work in a small team (3-4 people) to investigate/research the processing of wool from fleece to a completed garment.
- You should look at the whole process but your presentation could focus on a more detailed investigation of a particular part of the process.
- Collect photos and other evidence to use in your presentation.
- The team will decide how to present the information in a way which is appropriate for pupils back at your school.
- Your finished product will be a presentation of the wool process.
- You must produce an evaluation of your finished product.

You will come across many or all of these words during your research. You will need to find out their meanings.

**KEY WORDS**

CAM  Carding  Flowchart  Mule  Standardisation
Component  Gears  Nap  Staple
Drop spindle  Innovation  Natural  Teasel
Fabric  Lever  Production  Tension
Fibre  Machine  Repetition  Textile
Fleece  Manufacture  Shuttle  Weave
Mechanism  Spinning Jenny
Evaluation

During the production of your work you will have made evaluations as you went along. You will have made decisions about what was working well, whether things were going to plan etc. You may have done this either yourself or as part of the team.

After completing your presentation you need to consider how well things went, and make a final evaluation.

Consider the following questions:

1. What are the good points about your presentation?
2. How does it comply (fit in) with the brief?
3. What changes would you make (if any) if you did this again?
4. Does it explain the process well? How does it do this?
5. Did the final presentation turn out as you expected?
6. Were there any difficulties to overcome? What were they and how did you resolve them?
7. Did you change any of your plans as your work progressed? If so why did you need to do this?