

The Textiles Gallery

A guide for teachers and group leaders

The gallery contains exhibits relating to the historic cotton manufacturing and the modern textile and fashion industries in the North West of England. It opened in 1997.

Using the gallery

The gallery is on the ground floor of the Main Building, a former railway warehouse. Railway tracks ran into the building at ground level and goods were loaded and unloaded at platform level. Bridges and ramps provide access to the track and platform levels of the gallery. A variety of routes through the gallery are possible, although the machinery in the machine well (see below) is organised in sequence to show the process by which raw cotton was (and is) processed, spun and woven into fabric.

Manchester Mills, a demonstration of the textile machinery in operation takes place at 11.00am and 3.30pm daily. There is no need to book.

National Curriculum

The gallery relates to the following areas:

- Science (Materials and their properties)
- Design and technology
- History (the Victorians/Industrial Revolution)
- Art and design

What's in the gallery

The gallery consists of four sections.



1. The introductory and interactives area

Exhibits by groups and individuals that show the many ways fabrics are used in Manchester today. Displays include fabric technology, fashion design and artworks by local textile artists. A collection of interactive exhibits are displayed alongside historic textile machinery to allow visitors hands-on exploration of the properties and methods of construction of different fabrics. Key exhibits are:

- Hands-on displays allow visitors to observe, feel and touch the materials and fibres used to make fabrics from wool, cotton, acrylic, polyester, nylon, linen, hessian, acetate, viscose, flax jute and PVC.
- Jacquard loom (c.1910): the loom uses punch card to store the 'program' to weave cloth with elaborate patterns. A jacquard ribbon loom can be demonstrated in operation in the machine well.
- Braiding machine used to make multicoloured flat braids dating from 1900. Press and hold the button and watch the machine make a length of braid. Then try the interactive – follow instructions to braid ropes.
- Circular knitting machine dating from 1900. Press and hold the button and watch the machine knit. Then try the interactive – follow instructions to knit a rope.
- Non-wovens: an interactive that demonstrates how non-woven fabrics are made by blowing the fibres through small holes.

- Testing materials: a collection of simple hands-on displays enables visitors to explore how smooth, stretchy, strong or windproof different fabrics are.
- In the wash: exhibits on washing clothes today and in the past, including a video of film produced by the Electricity Council in the 1930s to encourage women to use electrical appliances to do the weekly wash.

2. The historical platform

Contains interpretative displays that tell how the manufacture of cotton transformed Manchester into 'Cottonopolis' and made money for the merchants who sold the finished fabric all over the world. Key exhibits include:

- Coming to Manchester: sound recordings tell the stories of five people who came to Manchester to work in the cotton industry since its beginnings.
- Pre-industrial revolution exhibits on display include a spinning wheel c.1750 and a handloom c.1830.
- Arkwright's water frame: a demonstration machine with only four spindles, which may have been used at Arkwright's first mill in Cromford, Derbyshire in the early 1770s.
- Making money: an installation. Shoes represent the merchants standing on the floor of the Royal Exchange where cotton was traded.
- The Merchant's Office: a 1930s office of a Manchester merchant with displays of equipment used to check, cut, weigh and pack cloth.
- Trademark printing blocks and stencils used to stamp the cloth and the bales are on display. Two blocks with crayons and paper are available to make rubbings.

3. The machine well

Demonstrations of the machines in operation provide an idea of working conditions in a Lancashire cotton mill. Key exhibits are:

- Cotton opening line machines: opened the bales of cotton on arrival at the mill.
- Carding engine: passes the raw cotton between rotating cylinders covered with spikes, which comb the fibres and remove any impurities.
- Draw frames and speed frames: these draw (i.e. pull) and twist the cotton into slivers so it can be spun into thread.
- Spinning mule (see right).
- Lancashire loom: the loom weaves the warp and weft threads into fabric.



4. Modern platform

Explores the legacy and contemporary issues of the textile industry and includes:

- Oral histories: listen to the stories of people who worked in the textiles industry.
- Finishing touches: bleaching, dyeing, printing, recycling and designing fabrics.
- Textiles Innovation and Testing: information about synthetics, technical textiles, medical applications and the development of the Macintosh.
- Manchester's global influence: information on the use of exotic designs to promote textile exports and the global influence of the cotton industry.