

History of the key mills

at Mill Waters heritage site

TN
TEACHER'S NOTES

TITLE SLIDE

In this lesson you are going to find out about the many mills which once produced yarn and textiles (material) around Mansfield and Sutton-in-Ashfield. You will learn where the mills once stood and if any of the buildings are still standing and what they are used for today.

You'll also find out about how some of the people involved in the textiles industry long ago are remembered around the town.



SLIDE 2

FARMING AND THE COTTAGE INDUSTRIES

Let's start by going back to a simpler time before the cotton mills even existed. Sutton would have been a quiet farming community with people living off the crops they harvested. During the quieter winter months families would make a living by knitting, spinning cotton and weaving in their homes. These were known as cottage industries.

Before advances in technology in the 1770s, textile production was a family activity. The children and women would 'card' the fibre — break up and clean the fluff into long bundles. The women would then spin these rough rovings into yarn wound on a spindle. The men would then weave this using a loom.

From the late 1600s Sutton became a centre for framework knitting, mostly as a cottage industry. In a survey of 1844 (1844 Commissioner's report on Framework Knitting) there were 1,884 frames in Sutton. To put that in perspective Mansfield had 733, Scotland had 2,329 and Ireland only had 151. In fact, there was more frames per head of population than in any other town or village in Britain. This put Sutton in an ideal position for the industrialisation of cloth and garment manufacturing.

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SLIDE 3 ADVANCES IN TECHNOLOGY

In 1764 Richard Hargreaves invented the Spinning Jenny. This decreased the amount of work needed to produce cloth as workers could produce yarn on eight or more spools at once in their homes.

The stocking frame was introduced in 1770 and gradually the trade grew until it became the staple industry. The early stockings were actually more like socks and were worn by men with knee-length breeches until the 1860s, when trousers became more common.

These skilled labourers were known as 'stockingers'; they usually wove on a hand-powered frame. They would set up the yarn in the frame by inserting bobbins and operate it by turning a handle or with treadles (a lever worked by the foot). By 1800, there were about 700 knitting frames in Sutton.

In actual fact the framework knitting machine had been invented two centuries earlier (in 1588), in Calverton, Nottingham, but didn't really take off until the 17th century. By the mid-1700s, the framework knitting industry was growing rapidly and entrepreneurs began to open frame-shops, where they would have 6-12 frames in one room worked by knitters whom they employed.

As the workshops gradually expanded people started working for them rather than operating their own cottage industry. Then the machines started to develop in such a way that one operator could

produce two or three times the output, which meant that many of the framework knitters lost their jobs. This sparked off the famous Luddite rebellions, which involved the unemployed craftsman going around smashing up the new frames. Framework knitting wavered between the cottage industry and the frame-shops until about the 1860s when full mechanisation took over.

The population of Mansfield went down between about 1845 and 1860 because its framework knitter industry was declining and the young men moved to Sutton to get jobs after serving their apprenticeships, where it was still thriving. All other towns in England increased in size, including Sutton while Mansfield decreased.

Interestingly, the Cauldwell dam, on the edge of Sutton parish and part of the Cauldwell Brook, became known as "The Stockinger's Rest" because so many of that industry committed suicide there because they couldn't earn enough money to provide for their families. There is a Victorian saying: "As poor as a Stockinger". It was generally accepted that they earned less than the common labourer, despite serving an apprenticeship.

**If you are interested in finding out more about the Luddites and social unrest in Sutton in the mid-late 19th century why not check out our education pack [Social Unrest and the Law in Sutton in the 1800s: www.millwaters.org.uk/media/1347/social-unrest.pdf](http://www.millwaters.org.uk/media/1347/social-unrest.pdf)*

SLIDE 4 THE INVENTION OF THE WATERFRAME

By 1768 a new invention really signalled the start of mass textile manufacturing: the 'water spinning cotton frame' or 'water frame' for short, pioneered by Sir Richard Arkwright.

The water frame could spin 128 threads at a time, which was an easier and faster method than ever before. The yarn was also stronger than that produced on the hand-controlled Spinning Jenny. Before Arkwright's invention the cotton, wool and other fibres were cleaned and then spun, or woven, by hand.

As the larger frame was situated in a mill powered by a water wheel, and could be operated by unskilled labourers, it signalled the beginning of the factory system, also called the Industrial Revolution.

There was a lot of unemployment and poverty in Sutton around the end of the 1700s as the new technology made it harder for the stockinger to get work. The framework knitters also now had to purchase the yarn instead of spinning it themselves, which was more expensive than the raw material. This put the women folk out of work but not the men.

Arkwright built his first water-powered mill in Cromford, Derbyshire in 1771.

It was not long before Arkwright's invention was changing the way in which the mills were powered in Sutton-in-Ashfield.

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SUTTON OR UNWIN'S MILL (LATER KNOWN AS DOBSON'S MILL)

When Sir Richard Arkwright invented his superior spinning machine in 1769 he took out a patent to stop others copying his design. His first mill was in Nottingham and was horse powered. In 1771 he built the first ever water-powered mill in Cromford, Derbyshire in 1771.

It was Samuel Unwin (a friend of Arkwright), a successful 'putter out' (a textiles merchant) saw the business opportunity and created the very first water-powered factory on Sutton's Eastfield side in 1771. It was located on the side of an older water mill on the River Idle, which soon after the mill flows into the River Maun. The River Idle is 99 percent culverted (it is in large pipes underground) but is commemorated in the Idlewells Shopping Centre, in the town centre.

Unwin's impressive castellated building was undoubtedly based on Arkwright's Cromford Mill, bringing all the processes of carding, weaving and bleaching into one place. In 1772 Unwin made (and patented) an improvement to Arkwright's water-frame, most likely to avoid paying royalties to Arkwright.

Between 1771 and 1784 Samuel, the younger, enlarged the 1771 mill to create a stunning water-powered four-storey castellated factory, with a windmill on top to pump water back into the seven-acre mill reservoir at a cost of £6,000.

Unwin's Mill signalled the rapid expansion of the textiles boom in Sutton. As there were many other cotton spinning factories in the area, Unwin's Mill specialised in the production of gingham, mainly used for bed linen and nankeen, a hard-wearing fabric for everyday clothing.

On the death of Samuel, the elder, in 1774 the business was taken over by Samuel's grandson, also called Samuel.

SLIDE 6

SUTTON LAWN AND DOBSON'S MILL

Sutton Lawn dates back to the mid-eighteenth century when Samuel Unwin built his magnificent castle-styled cotton mill and family residence, Sutton Hall.

A 1795 survey describes 'The Lawn' as being 13 acres 3 roods and 29 perches with a smaller piece about 4 roods. The survey then adds the 'Lower Lawn', being 4 acres 3 roods and 13 perches in size. The Dam being 7 acres. In the olden days when imperial measurement was used, land was measured in acres, roods and perches. Forty perches made up one rood and four roods equalled an acre.

The mill itself changed hands several times in the 1800s before coming into the ownership of silk throwsters, Allsop and Dobson in 1920. The waterwheel and windmill have long since gone but the listed ruins, now known as Dobson's Mill, have been converted for residential use.

A new house was built on the site of Old Sutton Hall in 1884 and the grounds of the property were leased by the Sutton Urban District Council "for the benefit of the inhabitants, from representatives of the Unwin family, in 1903, becoming known as The Lawn Pleasure Grounds".

The Lake (previously known as the Mill Dam) became a boating lake as part of Sutton Lawn Pleasure Grounds.

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SLIDE 7 KING'S MILL

Sadly, nothing remains of the original King's Mill which would once have been located where the reservoir is today, but records show that a common flour mill can be traced back to 1087, when the Crown owned all the land and charged a manorial fee for milling flour. A medieval joke said: What is the bravest thing in the land? A miller's shirt because it grabs a thief around the throat every day! Millers, working for the Lord of the Manor, were often caught charging more for milling than the Lord asked for, and pocketed the extra.

The mill was also referred to as Sutton Old Mill and there are records of it changing hands many times. In 1334 Miller Ralph was fined for stealing timber from woodland around King's Mill.

A play called *The King and Miller of Mansfield*, by Mansfield-born Robert Dodsley, features one of the mill owners, John Cockle, who encounters King Henry II (who reigned from 1154 until he died in 1189) in the forest near King's Mill. The King had become lost and estranged from his party whilst out hunting. Pupils can learn more about the play in Lesson 2.

By 1774, Chapman's map shows six corn and malt mills along the River Maun, using power generated by a water wheel. King's Mill is at the top, 500 yards from the medieval mill pond owned by the landowner, the Duke of Portland.

This is a painting of how the old mill might have looked in 1787, by A S Buxton, who painted it in 1920. The A S Buxton collection of paintings of old Mansfield can be viewed at Mansfield Library.

SLIDE 8 CONVERSION OF THE CORN MILLS FOR THE TEXTILE INDUSTRY

King's Mill was not the only water-powered mill in the area. There were many other mills which were created along the banks of the River Maun.

The 3rd Duke of Portland who owned the Welbeck Estate, which included most of Mansfield and large parts of Sutton and Kirkby and the land around King's Mill, received proceeds from the corn mills and farmlands that he leased out.

Towards the end of the 1700s the Duke commissioned the conversion of several old water-powered corn mills on his land (he paid the mill owners to upgrade their mills) to carrying out cotton spinning, leather tanning and bleaching to enable them to compete in this new industry.

Some new mills were also built, the first of which was Hermitage Mill in 1782 by Samuel Unwin and his son in law, James Heygate, a London banker. As we've already learnt, Samuel was a key figure in the history of Sutton's historic textiles mills.

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SLIDE 10 HERMITAGE MILL

The pond overlooked by the Portland Viaduct at the Mill Waters site is known as Hermitage Pond.

There is a record of a hermitage (a very basic home where a solitary monk would live) at the site going back eight centuries, but it was the 4th Duke of Portland who created the three-storey mill (with a basement) at the Hermitage as part of his effort to increase Mansfield's competitiveness in the textiles trade when the water frame had been invented.

In the 1870s a large brick extension was built to enable the mill to change from cotton-spinning to the manufacture of lace and hosiery, and to accommodate the change from water power to steam power. Other additions included an engine house, by 1878, and boiler room.

The mill building is now Grade II listed which means it is protected by law and can't be demolished, however it has been granted approved planning permission to convert it into sheltered accommodation.

SLIDE 11 STREET NAMES IN SUTTON-IN-ASHFIELD RELATING TO THE MILLS

Unwin Road, Sutton-in-Ashfield (there is an Unwin Street in adjoining Huthwaite)

Portland Street, Sutton-in-Ashfield

Kings Mill Road East / West (Sutton-in-Ashfield)

Kings Mill Way, Mansfield

Kings Mill Lane, Mansfield (adjacent to the Reservoir)

Millersdale Avenue, Mansfield (off Kings Mill Lane)

Portland Square, Sutton-in-Ashfield

Samuel Unwin Court, Sutton-in-Ashfield

Millers Way, (within the grounds of King's Mill Hospital)

Other notable places

The Unwin Club, Mansfield Road, Sutton-in-Ashfield

Sir John Cockle pub, Sutton Road, Mansfield

Kings Mill Farm Dining & Carvery, Kings Mill Road East, Sutton-in-Ashfield (When first built it was called "The King and Miller")

King's Mill Hospital, opposite the reservoir

King's Mill viaduct

Portland Training College, Nottingham Road, Sutton-in-Ashfield

Toby Carvery Watermill, Kingfisher Way, Sutton-in-Ashfield

HANDOUTS

In the handouts you can read what the mills produced and whether they survive in some form today.

KM_L1HO1 Map of Mansfield and Sutton's historic mills

You can provide pupils with a deeper understanding of how water wheels work by working through

KM_L1HO2 List of the key mills and what they produced

our education pack about this topic here:

KM_L1HO3 Map of Sutton with street names highlighted

www.millwaters.org.uk/project-update/education/

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LEARNING ACTIVITIES

1. Discussion prompts:

Why were the mills located along the river?

How different was Sutton-in-Ashfield in the early 1700s compared with how it is today?

Was the Duke of Portland driven by a desire to help his tenants or his own prosperity?

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LEARNING ACTIVITIES

2. Describe Sutton and Mansfield's historic cotton mills through a presentation or virtual tour.

Pupils should work in small teams to produce a presentation using images of the mills and explaining what they once manufactured, as well as some of the people involved in Sutton's historic textiles industry.

Alternatively, they could take people back in time to when the textiles mills were first created in Sutton, perhaps as a time traveller visiting some of the buildings which are still standing around Sutton and Mansfield today.

Perhaps they could mention some of the other ways that the people involved in Sutton's textiles history are commemorated in the town?