Objectives:
To understand some of the processes involved in textile production.

National Curriculum Links:
Design and Technology - understand how key events and individuals in design and technology have helped shape the world

Introduction:
Display the images of the processes in Salts Mill. What do children think is going on? Why do they have so many machines?

Explain that Salts Mill was a major producer of wool fabric in the 19th and 20th centuries. Remind them from the previous lesson that Titus Salt brought the whole process into one huge mill to improve the speed of production. Today, they are going to see for themselves the impact the industrial revolution had upon the textile industry.

Main Activity:
Split the class into three groups. One of these will concentrate on spinning, one on weaving and one on dyeing (they will all have chance to try each process).

Provide each group with the relevant activity sheet and materials listed there. Adult support will be required for the dyeing group and another adult is recommended to support the other two groups. Weaving is tricky at first and spinning can be very frustrating!

Allow children ten minutes on their activity to become familiar with the process and any initial set up needed. After 10 minutes, stop and see how much yarn/cloth they have produced. Assist any children still struggling with set-up so all are ready to start the process itself.

Allow another ten minutes to see how much is produced. After this time, rotate between the groups and repeat (as each process should be set up now, the time can be reduced but children should still keep track of how long they have worked).

Plenary:
Explain that they have been producing cloth in the way it was done before the industrial revolution – by hand. Choose the largest examples of yarn spun, dyed and fabric woven. With children’s support, calculate how much they could each produce in 9 hours (the Factory Act in 1833 prevented children working more than 9 hours a day). Compare this to how much cloth Salts Mill produced (18 miles per day/~30000m) so children can see the significance of mechanised production on an industrial scale.

You will need:
Selection of photographs showing processes in Salts Mill (PCM09)
Instructions for dyeing, spinning and weaving (PCM10)
Wooden doweling (5 mm diameter, 15 cm lengths)
Blu-tac or similar
Raw wool
Panel Pins
Wool yarn – white/natural
Darning needles
Turmeric
Boiling water (for teacher’s use)
Minimum of 1 adult, recommend 2-3.
Continued.

The industrial revolution was a huge boost to business and made factory owners extremely rich. What might be the other consequences of the industrial revolution?

- Traditional skills lost – between 1811-1816, bands of workers, called Luddites, destroyed machinery, believing it threatened their jobs. Luddite is still sometimes used to mean someone who refuses to use new technology.

- Injuries from machines – these were common particularly for children – because they were small they could work among the moving parts of machinery.

- Pollution – factory machines were usually powered by steam from burning coal. This led to very bad air pollution and smog – pollution mixed with fog. This continued for a long time with the worst being in London 1952, killing 12,000 people.