



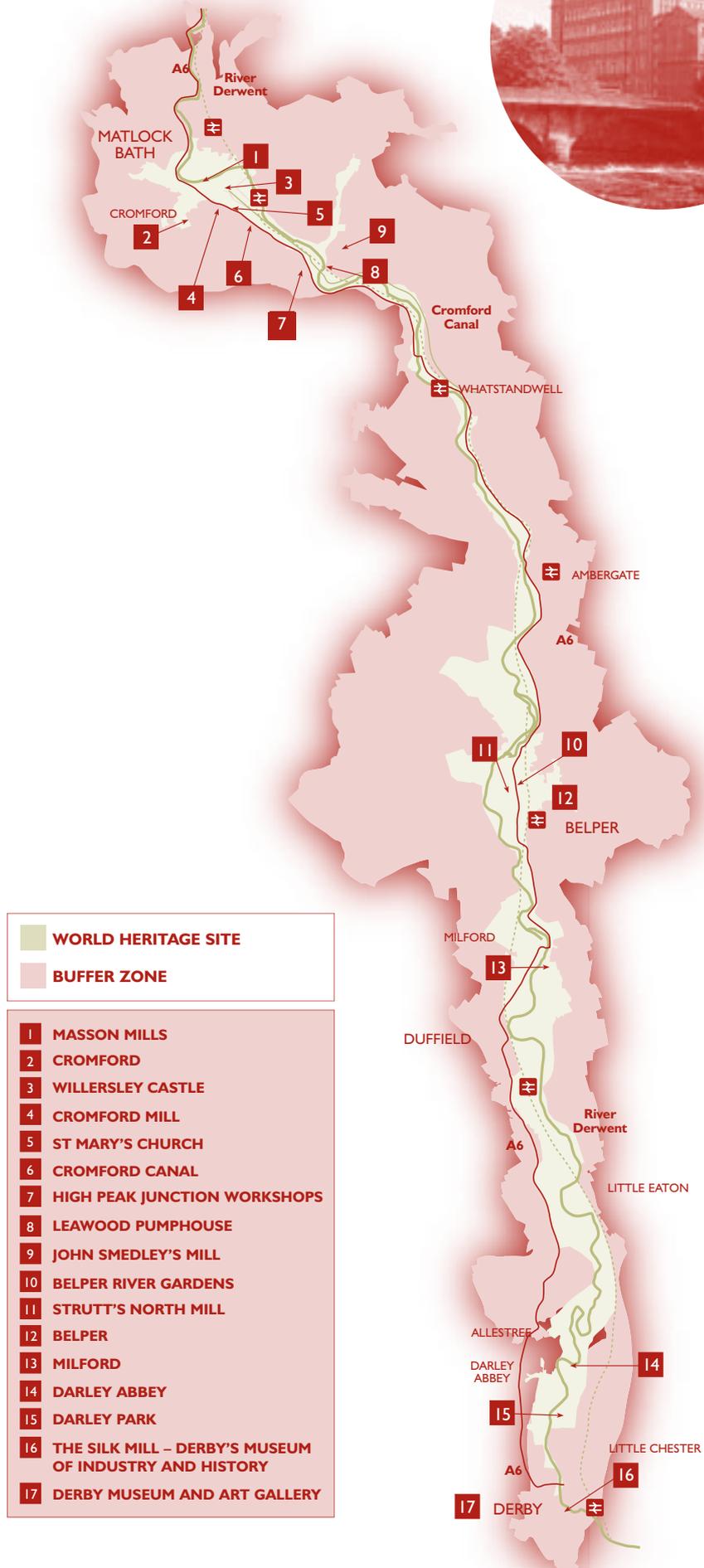
UNIT 18 Y3/4

What was it like to live in Belper in the past?

AN EDUCATIONAL RESOURCE
PACK FOR TEACHERS

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INTRODUCTION



UNIT 18 YEARS 3/4

What was it like to live in Belper in the past?



ABOUT THE UNIT

In this unit, children are introduced to an enquiry-based approach to a local study of Belper, in Derbyshire. The focus of the unit is the industrial settlement built by Jedediah Strutt and his successors from 1788 and onwards for their workforce. The workplace was the cotton mill, part of which, North Mill, can be visited as part of a field trip. This unit will give the children direct access to historical sources and is an excellent chance to develop fieldwork and research skills. The unit also provides an opportunity to consider citizenship issues such as planning for change, conservation, local identity and social responsibility.

WHERE THE UNIT FITS IN

This local study can provide links with the geographical study, Unit 6 'Investigating our local area'. In history this resource pack has links with the units designed to investigate Victorian Britain, such as Units 11 and 12 'What was it like for children living in Victorian Britain?' and 'How did life change in our locality in Victorian times?', and could lead on from a study of a famous person, Jedediah Strutt, adapted from Unit 4, and in this way provide a local dimension to a study of a national event, the Industrial Revolution.

ADAPTING THE UNIT FOR A DIFFERENT AGE GROUP

Year 5 and 6 children could:

- Focus on the development of the factory system or
- on the mechanisation of the textile industry or
- on the design of cotton mills or
- the conservation of the built environment
- use a more extensive range of sources
- present their findings using a wider range of communication techniques.

PRIOR LEARNING	VOCABULARY	RESOURCES
<p>It is helpful if the children have:</p> <ul style="list-style-type: none"> • worked with sources from the past such as artefacts, pictures and buildings • started to develop observation and recording skills • asked and answered questions about sources to find information about the past. 	<p>In this unit, children will have opportunities to use:</p> <ul style="list-style-type: none"> • words associated with historical sources, e.g. census, street directories, oral history, documents, tithe maps, rent books, newspapers • words associated with historical research, e.g. decade, century • words associated with buildings, e.g. cotton mill, factory, industry, industrial settlement, storey, sash window, terraced housing, back-to-back, estate, cluster, chapel, pigsty, privy, waterpower, cluster house. 	<ul style="list-style-type: none"> • a range of old maps including Tithe Maps and Ordnance Survey maps • copies of old photographs, drawings and paintings • help from the volunteers at Strutt's North Mill, Belper and the World Heritage Site Coordinator • local history books and leaflets • newspaper articles • Strutt's North Mill Visitor Centre and Museum • documentary sources such as census returns, parish records, rent books and street/trade directories • English Heritage produce many valuable teachers' guides. The Teachers' Guide to Local Studies will be very useful in this context.

EXPECTATIONS At the end of this unit

most children will:	recognise buildings and features in Belper and know how the industrial settlement developed over time; demonstrate factual knowledge and understanding about the history of Belper, the families who lived and worked in the cotton mills and the Strutt family; know something of the living and working conditions of the area; ask and answer questions and make deductions about the area by using historical sources in a variety of ways
some children will not have made so much progress and will:	recognise different buildings in Belper and know what they were used for in the past; understand that life was different in Belper in the past
some children will have progressed further and will:	describe and compare features of the industrial settlement of Belper; select and combine information from several sources to find out about certain aspects of the past in the locality.

KEY STAGE TWO YEARS 5/6

LEARNING OBJECTIVES	POSSIBLE TEACHING ACTIVITIES
<p>CHILDREN SHOULD LEARN:</p> <ul style="list-style-type: none"> • That a map is a representation of an area • To recognise some features in the industrial settlement of Belper, and to locate them on a map • That an area may contain a mixture of old and new buildings 	<p>What is Belper like today? Make a visit to the industrial settlement of Belper. Use the collection of photographs of buildings or features and ask the children, as they are led on their walk, to spot the buildings and features as they go. Use a simplified map of the area and ask the children to mark on the map where they have seen the various buildings and features. Back in the classroom, prepare a large simplified map of the industrial settlement of Belper, with a picture of Strutt's North Mill at its centre. Mark on the street names. Ask the children to put the photographs in their correct places on the map. Use the photographs as a basis for an introductory discussion about how the buildings are used and who uses them. Ask the children to sort the buildings into 'old' and 'new', giving reasons for their choice. Use this as an opportunity to discuss what is meant by old.</p>
<ul style="list-style-type: none"> • That there are different sources of information that can tell us about the past • To develop skills of accurate observation and recording • To make deduction from physical evidence • To recognise that some questions can be answered by looking at buildings and others cannot 	<p>What can the buildings and other features in the industrial settlement of Belper tell us about the past? Arrange a visit to Strutt's North Mill. Ask the children to observe and record information to help answer questions such as: what does it look like? What is it made of? What is it used for now? What clues tell us about how it was used in the past? Is there anything unusual about it? What are the surroundings like? Why do you think it was built here?</p> <p>The staff at Strutt's North Mill will help lead a discussion about what sort of people worked here, what kind of work they were doing and what the working conditions were like. They will be able to demonstrate machines that were used in the textile industry. Ask the children to look at the size of the rooms and the construction of the building. Investigate the outside of the building and find the weirs, leats and the river that brought water power to the mill to work the machines.</p> <p>Back in the classroom use reference materials to find out more about what it might have been like to work in this building. Arrange a visit to the industrial settlement of Belper. Identify the different house types that were built for the mill workforce. Find the Unitarian Chapel built by Jedediah Strutt. Study the school building.</p>
<ul style="list-style-type: none"> • To find information about the area from studying pictures • To question pictures as interpretations of the past 	<p>What do pictures and photographs tell us about the past? Give the children pictures (paintings, sketches, photographs, postcards) showing how the area has changed. Challenge the children, working in pairs, to ask each other questions about each picture. Help them to ask open ended questions, such as: what does it tell us about the area and people in the past? What has changed and what has stayed the same? Why might this be so? Encourage the children to look closely at the details and compare them with a modern photograph or, if on field work and it is possible, ask the children to stand in the spot they think the photographer was standing and compare the scene. Lead a discussion on what sort of people the children think might have lived/ worked/visited here. Ask them to look at size, number of rooms, decorative features and layout as to clues to its use. Encourage them to ask questions about the place as it was in the past, even if it is not possible to find the answers.</p>

LEARNING OUTCOMES	POINTS TO NOTE
<ul style="list-style-type: none"> Identify features in the industrial settlement of Belper on the large map Use features of buildings to infer their use and who owned them Categorise buildings as 'old' or 'new' 	<p>For this activity the industrial settlement of Belper has been selected. The staff at Strutt's North Mill, Belper, will lead the children on a site visit of the mill and the settlement by arrangement. The settlement includes the mill, the school, various types of houses, the River Gardens and the Chapel. The pack includes photographs of all these different building types and features. Included in the pack is a variety of supporting material such as old photographs, maps and census returns.</p> <p>If possible, lay the large map out flat on the floor or on groups of tables rather than upright.</p> <p>Remember that some buildings are multi-period.</p>
<ul style="list-style-type: none"> Identify some features of a building through observation and asking and answering questions Record their observations by annotating drawings or by labelling and completing a prepared activity sheet Write a short, accurate description of the place and the people who worked there and what they were doing Write a description about where people lived and what it was like to live and work in the industrial settlement of Belper 	<p>This work will focus on the workforce of Strutt's North Mill, what their lives were like and where they lived. It will also focus on Jedediah Strutt, the mill owner, and his relationship with his workforce. The activities will develop around a storyline about what life was like as a mill worker and sources will be introduced to help the children with their investigations.</p> <p>The staff at Strutt's North Mill will take the children on a guided tour of the industrial settlement and can arrange for a visit to see the interior of the Chapel.</p>
<ul style="list-style-type: none"> Identify features of the area from pictures Record their ideas about how things have changed 	<p>It is helpful to use two or more pictures of the same place from different periods, including the present, so it would be useful to take a camera on a school field visit to Belper to record features of the industrial settlement today.</p>

KEY STAGE TWO YEARS 5/6

LEARNING OBJECTIVES	POSSIBLE TEACHING ACTIVITIES
<ul style="list-style-type: none"> To find out about the past from different written sources To discover that different kinds of written sources provide different information about an area 	<p>Which sources can we use?</p> <p>Rent books Use the rent books to find out about one family in a particular house, their names, ages and jobs. Encourage the children to make deductions about the family structure, their lifestyle, their home, where they went to work, school or shop.</p> <p>School records Choose an event from the school log book to provide background information for the children to write about the incident, e.g. from an eyewitness or participant's point of view.</p> <p>List of forfeits for bad behaviour in the workplace Use the lists to find out what mill workers did that caused their employers to fine them, what was considered bad behaviour in the workforce and what the penalties were.</p>
<ul style="list-style-type: none"> To synthesise what they have found out To contribute and cooperate as a group To organise information and communicate it in a variety of ways appropriate to the audience 	<p>What was it like to live and work in the industrial settlement of Belper in the past? The results of the different activities can be organised and communicated to other audiences in various ways and children should consider the intended audience. For example:</p> <p>Wall or table display Ask groups to make detailed, labelled drawings to surround a large picture or model of North Mill Belper to show what it was like to work in a cotton mill.</p> <p>Guide book Make a guide book for visitors to the industrial settlement of Belper to point out the various housing types.</p> <p>Tape/slide show Plan a tape/slide show presentation using a storyboard technique to demonstrate the story of raw cotton to finished cloth. Discuss with the children the best length for a presentation for a chosen audience and the number of slides that will be needed</p> <p>Oral presentation Ask different groups of children to take on the role of Jedediah Strutt, an overseer in the mill or a child working in the mill while the rest of the class ask them questions. What questions would the children ask if they became time travellers and were able to visit the cotton mill in the year 1801?</p> <p>Drama Ask the children to devise a drama based on the visit of Princess Victoria to Belper in 1834.</p>
<ul style="list-style-type: none"> To preserve areas of interest for future generations To learn how the built environment can be protected To be aware of the importance of local identity 	<p>Why is this area in a conservation area and why are many of the buildings and features listed? Ask the local Conservation Officer to come into school and talk about conservation areas and the listing process. Find out which buildings and features are listed and why. Discuss the use of local building materials and styles.</p>
<ul style="list-style-type: none"> To discover why the Derwent Valley Mills has been made a World Heritage site 	<p>Why is this area part of a World Heritage Site? Ask the World Heritage Project Officer to come into school to give a presentation about the World Heritage Site.</p>

LEARNING OUTCOMES	POINTS TO NOTE
<ul style="list-style-type: none"> • Demonstrate knowledge about the way of life of people who lived in the industrial settlement of Belper in the past, either orally or in writing • Make comparisons between lifestyles today and in the past 	<p>There is a small shop in the North Mill, Belper, where many useful publications and leaflets can be bought to enhance this pack.</p> <p>However, all the source material used in the activities suggested in the pack are provided with the pack.</p> <p>For further information on written sources, see the English Heritage publication 'Using Documents'. English Heritage also publish Teachers' Guides on using churches and school buildings.</p>
<ul style="list-style-type: none"> • Make a presentation showing the knowledge and understanding of the history of the industrial settlement of Belper developed through the unit • Present information in a way that is appropriate to the intended audience 	<p>Ensure that the key questions that form the enquiries are made explicit by using them as headings.</p>
<ul style="list-style-type: none"> • Can give examples of ways the built environment can be protected against inappropriate development • Can say what the local building materials were in Belper in the past 	<p>Links to sense of place in art.</p> <p>Make contact with your local Conservation Officer. This officer will need to be well briefed before the visit about the children's and teachers' expectations. Prepare suitable questions for the children to ask beforehand.</p>
<ul style="list-style-type: none"> • Can give examples of other World Heritage sites in the UK • Can say what is important about the Derwent Valley in heritage terms 	<p>The Derwent Valley Mills World Heritage Site coordinator may be able to give a presentation to the children about World Heritage and the Derwent Valley Mills.</p>

KEY QUESTION ONE

What is the industrial settlement of Belper like today?



Purpose

- To learn that a map can be a representation of a settlement
- To recognise some of the features in the industrial settlement of Belper
- To understand that the area may contain a mixture of old and new buildings.

Resources that are included in the pack

- Recent photographs of Strutt's North Mill, the River Gardens, the school, the Unitarian Chapel, and various house types and facilities
- A simplified map of the area.

Fieldwork

- Arrange a visit to Strutt's North Mill, a tour of the River Gardens and the Industrial Settlement. Contact on 01773 880474 or the Manager on 01773 822383. Charges: Half day: £2.00 per pupil; accompanying adults free. Full day: £4.00 per pupil; accompanying adults free. For more details of what is available at the Mill, see copy of the Derwent Valley Mills World Heritage Site Education Directory available online at www.derwentvalleymills.org

Activity One

Introduction to the fieldwork trip, made in the classroom before the class visits the site.

Tell the children that they are going to be learning about what it was like to live in the industrial settlement of Belper; that Belper is a small town in Derbyshire and that it has a very interesting past. Tell the children that Belper is in a World Heritage Site, the Derwent Valley Mills World Heritage Site, and that they are going to be finding out why this town is so important and famous by carrying out fieldwork in Belper and research back in the classroom. Tell them that they will be using all sorts of old maps, photographs and documents. Say that Belper is famous because a man called Jedediah Strutt built a cotton mill on the banks of the River Derwent a long time ago, and built houses and schools and a chapel for the families who worked at the Mill. Say that this period of time is called the 'industrial revolution' because for the first time people, mostly women and children, went out to work in the cotton mills instead of working at home.

Tell the children that the first thing they are going to do is to make a fieldtrip to Belper, where they will visit the cotton mill and the industrial settlement of Belper, and that they will be carrying out all sorts of fieldwork activities while they are there.

Tell the children that one question they will be trying to answer is, 'What is Belper like today?'

Give the children the set of recent photographs of Belper. You may photocopy the photographs so that each group has their own set. Let the children have a good look at them so that they are familiar with them. This will help them spot the various buildings when they explore Belper. Give each group a copy of the simplified map of the area and let the children become familiar with this also. You could tell the children that when they go on the field trip to Belper they will be looking out to see if they can spot the buildings as they walk around. Tell them that they will be asked to mark the location of the buildings onto the map. Explain that this is because, when come back to the classroom after the field trip, they are going to make a very large map of Belper to show what Belper is like today, with all the pictures of the buildings in their correct locations.

Tell the children that when they go to Belper they will begin by looking at the old cotton mill, the North Mill.

Tell the children that they will find that this old mill building now has a museum on the ground floor and basement which they can visit, and that the rest of the building is now used for small businesses and offices but that, unfortunately, they can't visit the upstairs of the building.

Organisation of fieldwork visit

During the fieldwork visit the children will be carrying out a mixture of activities from the three enquiry questions; Key Question 1 'What is Belper like today?', Key Question 2 'What can the buildings and other features in the industrial settlement of Belper tell us about the past?' and Key Question 3 'What do photographs and pictures tell us about the past?' If you are staying in the area you may be able to make more than one visit to Belper and can carry out fieldwork related to each question over a number of days. The fieldwork activities will be described under each of the three separate key questions.

KEY QUESTION ONE

Take the set of recent photographs of Belper with you. You may photocopy the photographs so that each group has its own set. Remind the children to have a good look at them before you set out so that they are familiar with them. This will help them spot the various buildings and features as they explore Belper. Give each group a copy of the simplified map of the area and let the children become familiar with this also. Tell the children that, while they are on the field trip to Belper, they will be looking out to see if they can spot the various buildings and features and that they will then try to mark where they find them on the map. Remind them that this is because when they come back to the classroom they are going to make a very large map to show what Belper is like today.

When you arrive at Strutt's North Mill, ask the children to look through the set of recent photographs and see if they can spot any of the features or buildings around them that match the photographs. They should be able to spot North Mill and the Horseshoe Weir with the Derwent River flowing over it.

During the visit the class will also visit the Unitarian Chapel, Long Row Primary School, the Nailshop, the Clusters (a type of housing for the workforce), Long Row (a street of industrial three storey terraced housing), Shorts Rows (a street of two storey housing) and the Pleasure Gardens.

At each location, ask the children to look through their pack of photographs and find the one that shows the building or feature and then locate the building and mark where it is on the map. If you have brought a camera with you, take more photographs of details of the buildings, such as street names, examples of windows and doorways, building materials and general street scenes. These will all be useful for you for some of the follow up activities suggested later in the pack.

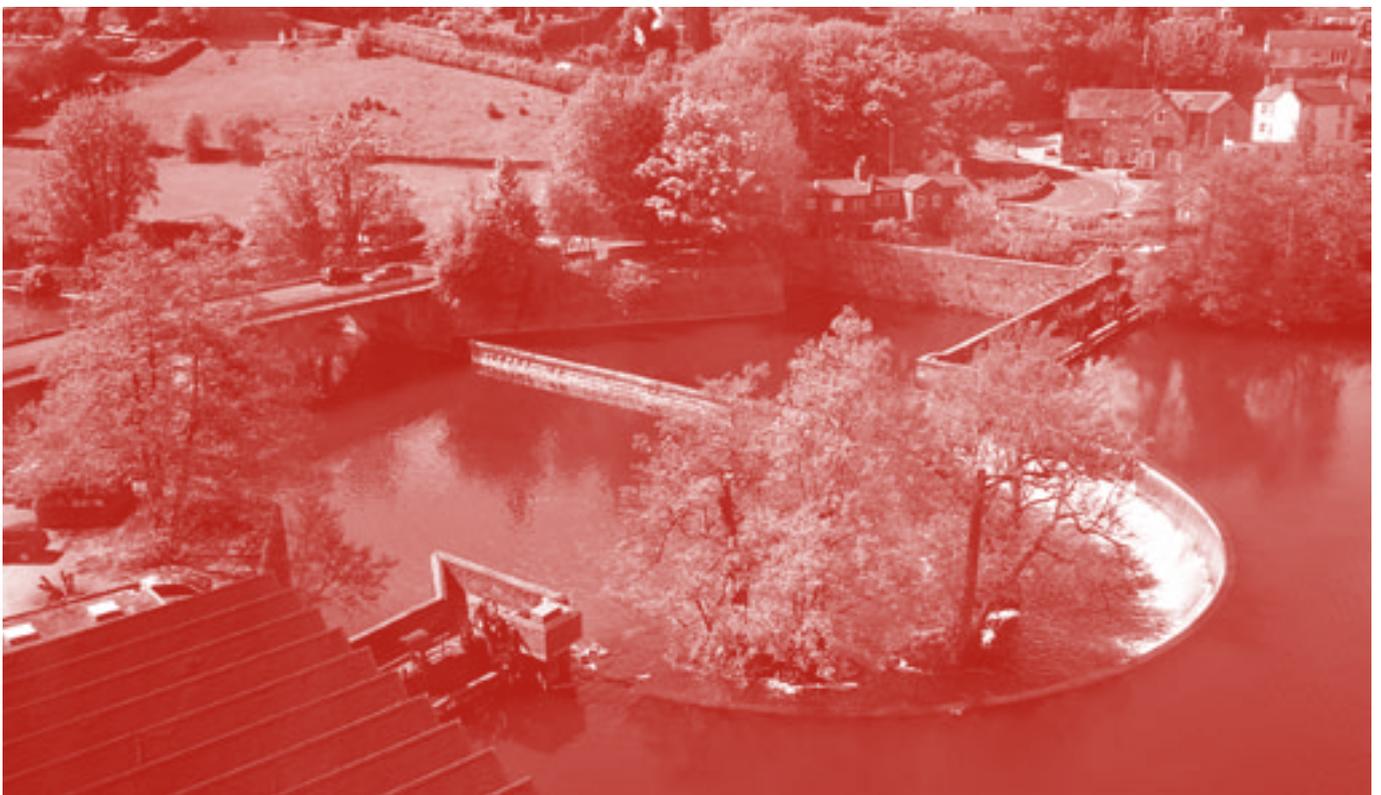
Back at School

The children will now be familiar with the location of North Mill and the industrial settlement of Belper. They should now be able to place the set of photographs in their correct locations on the large map you have copied from the small simplified map, and on which you have written the street names. The children could try to see if they remember the route they walked through the area. This map and the walk could be used later on in the unit when the children are asked to make a guide to the area.

KEY QUESTION ONE



East Mill with North Mill behind taken from the other side of the River Derwent



The Horseshoe Weir from the roof of East Mill

KEY QUESTION ONE



Long Row



The type of housing called the Clusters

KEY QUESTION ONE



Long Row from the bottom of the street



Long Row from the top of the street

KEY QUESTION ONE



The Pleasure Gardens from the opposite bank of the River Derwent

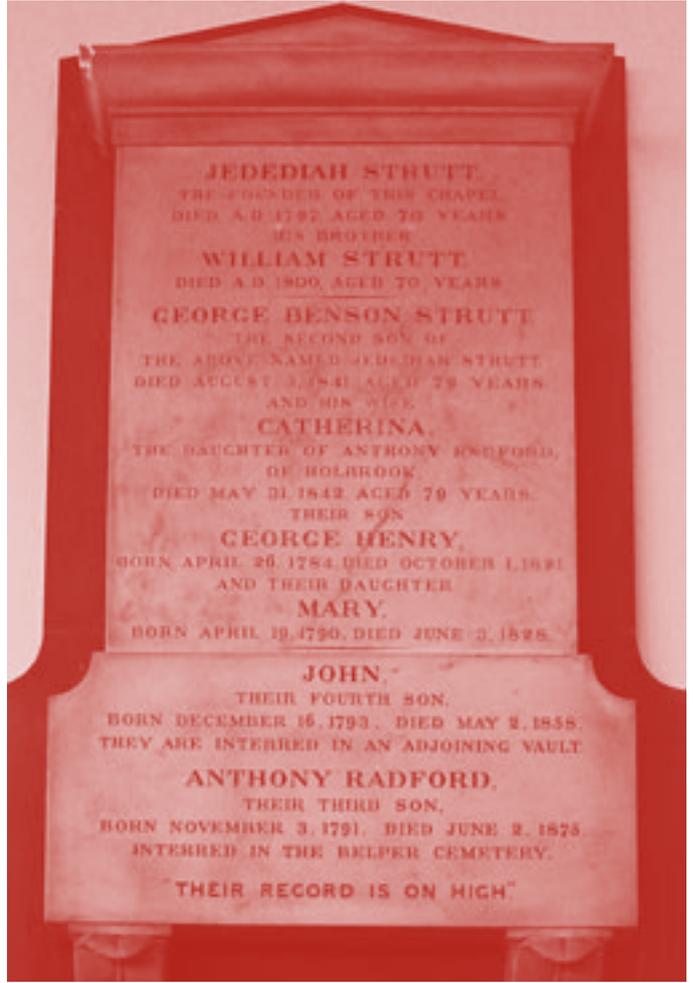


The Pleasure Gardens looking towards the bandstand

KEY QUESTION ONE



Strutt's Chapel



*Plaque to memory of Jedediah Strutt and his family
inside the Unitarian Chapel*

KEY QUESTION ONE



Strutt's North Mill with the East Mill behind

KEY QUESTION TWO

What can the buildings and other features in the industrial settlement of Belper tell us about the past?



Purpose

- To learn that there are different sources of information that can tell us about the past
- To develop skills of accurate observation and recording
- To make deductions from physical evidence
- To recognise that some questions can be answered by looking at buildings and others cannot.

Resources

The built environment including:

- A) Places of work – Strutt's North Mill and the Nail Shop in Joseph Street
- B) Places of worship – The Unitarian Chapel
- C) School – Long Row School
- D) Housing:
 - ⊙ Type one – One up, one down, terraced housing – Short Rows
 - ⊙ Type two – Three storey houses, terraced housing – Long Row
 - ⊙ Type three – Cluster housing
- E) The Pleasure Gardens

Fieldwork

- Arrange a visit and tour of Strutt's North Mill and a tour of the River Gardens and Industrial Settlement of Belper. Contact the manager at Strutt's North Mill, Bridgefoot, Belper, Derbyshire DE56 1YD. Telephone: 01773 880474 Website: www.belpernorthmill.org.uk

Activity One

Introduction to the fieldwork visit

Tell the children that they are going on a visit to Belper to visit: a cotton mill and the houses where the mill workers lived, the nail shop, as well as the school where the children learned to read and write, the Unitarian Chapel where families went to worship and the Pleasure Gardens where people went to enjoy themselves on high days and holidays. Explain that while the children are in Belper they are going to try to learn what they can about the past by studying the buildings and other features. When they come back to school, they will then use all kinds of documents, such as census data, old newspapers and school registers to find out more about the people that lived, worked and played in the buildings and features they have visited.

Fieldwork Organisation

Arrange for a visit to Strutt's North Mill, Belper, and ask for a tour based on the working lives of men, women and children. The children may dress up as mill workers and experience the discipline imposed by the overseer of the Mill. Ask particularly for a description of the different working lives of the ordered and disciplined mill workers compared with the independent nail workers who worked their own hours. They can try their hand at spinning and knitting and look at the spinning, circular knitting machines.

The half day at the Mill will cost £2.00 per child. In the afternoon, arrange for a tour of the workers' houses and the Chapel and the River Gardens. This tour will also cost £2.00 per child.

In addition, the children could carry out a number of fieldwork activities relating to the actual buildings.

KEY QUESTION TWO

A) Places of work Strutt's North Mill

Background information for teachers about the importance of this building.

Strutt's North Mill, rebuilt in 1804 by William Strutt, the son of Jedediah Strutt, on the lower storeys of the earlier mill that had been destroyed by fire in 1803, embodies the knowledge accumulated from all the earlier experiments William Strutt had made into fire-resistant mill structures, using iron beams and columns, and from his close participation in Charles Bage's pioneering work at Shrewsbury. William Strutt, 1756-1830, was a mechanic and engineer of the highest distinction. He was the first to tackle systematically the threat of fire in textile mills first by cladding with plaster and then by the use of iron and brick. His work with Charles Bage, who grew up in Darley Abbey and whom he may have known from an early age, was seminal in the evolution of fire-proof design.

The Mill is constructed in brick on a stone base. The exterior retains the character of the earlier mill and so has the appearance of a first generation Arkwright-type structure. Every aspect of the building was designed to resist combustion or fire damage. It has a T-shaped plan consisting of a main range of 17 bays, or windows, and a wing of six bays. Housed within the wing is the wheel chamber that occupies the three bays adjacent to the main range.

The machinery in the Mill was powered by a water wheel. The wheel pit, which now stands empty, gives some indication of the power once generated to operate this Mill. In the basement, the former ground floor of the earlier mill, stone piers carry the cast iron columns which support each of the floors above.

The floors are composed of brick and tile supported by arches that spring from cast iron beams. The beams are supported by cast iron columns which, in turn, are linked together by wrought iron ties. Clay pots are used to infill the floor arches in the bays above the water wheel, so reducing the weight in this area. See the cross section and plan of North Mill from Rees' Cyclopaedia.

Activity

Looking at the building from the outside.

Key questions:

- What does it look like?
- How big is it?
- What is it made of?
- What are the surroundings like?
- Why do you think it was built here?

The children need to understand that this is a huge building. The children will only be shown the ground floor and the basement which is the part of the building that is open to the public. They will not be able to visit the other five floors as they are let out to various businesses. The best impression of the huge size of this building is, therefore, best seen from the outside. Ask the staff at

Stutt's North Mill to let the group go out through the building into the yard to look at the building from East side. When the children arrive on site they could be asked to draw the building, counting how many storeys or floors there are; this can best be seen by counting the windows. They could then count how many windows there are on each floor. They could label the drawing to say how many floors and windows. They could also look at the materials that have been used to build the walls and, again, annotate their drawing to record their findings, noting the material and the colour. (The materials are local grit stone and red brick, one being a natural material that has been quarried and shaped with tools and the other being man-made using clay which has been moulded into shape and then baked or fired).

They could then think about the surroundings and discover that the building has been built near the river. If the children explore the outside of the building and its immediate surroundings, with the help of staff from the North Mill, they will discover that the river water is made to flow under the building by means of weirs (the horseshoe weir), sluice gates and leats. They should be able to decide that for some reason it was important that this building was built near the river. *They will find out why when they visit the inside of the Mill and discover where the water wheel used to be and what the power of the water wheel was used for.* The children could be given a copy of the Ordnance Survey map of Strutt's Belper Mills from 1880. The children could colour blue the River Derwent and the water channels as they flow through the mills, either on-site or back at school.

Take the children inside the building. Key questions to use with the children:

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Is there anything unusual about it?
- Who worked here in the past?

How big is it?

The children will then be taken inside the building where the children can get an impression of the large size of the interior space. Explain to them that they are on the ground floor of the Mill and that there is a basement underneath them and five more floors above them. Cotton mills were and are huge buildings.

What is it used for now?

What was it used for in the past?

You will go in through what was the short arm of the T-shaped building. This room is now used as the reception area for the Mill and is used for the shop and Information Centre with a small meeting area where people can have basic refreshments. It was used for spinning cotton and would have contained water-powered spinning frames. A little further into the building is an area that is used as a meeting room where videos can be shown. The water wheel was underneath this room and the children will

KEY QUESTION TWO

be taken to see where the wheel was positioned when they go into the basement. It would help the children if they had a simple plan of this floor of the Mill, showing what it was used for in the past, and a blank plan on which they can write or draw what it is used for today.

The children will be taken into the main wing of the ground floor. This now contains the museum and includes various machines and displays about the textile industry.

In the past it would have been full of water-powered spinning frames that would have been spinning cotton thread. It would have been very noisy and the air would have been filled with cotton dust. You could show the children the picture of the interior of a cotton spinning mill included in this pack. You could also share with them this description of a large cotton mill from an article in Ree's Cyclopaedia from November 1812, written by John Farey and called 'Manufacture of Cotton'.

“A large cotton mill is generally a building of five or six storeys high: the two lowest are usually for the spinning frames, if they are for water twist, because of the great weight and vibration caused by these machines. The third and fourth floors contain the carding, drawing, and roving machines. The fifth storey is appropriated to the reeling, doubling and twisting and other operations performed on the finished thread. The sixth, which is usually in the roof, is for the batting machine, or opening machine, and for the cotton pickers, who for a large mill are very numerous. This last is not always so occupied, many manufacturers thinking it better to have out-buildings for this part of the process, and only to have such parts in the mill as require the aid of the large water-wheel or steam engine, which turns the whole mill. If the mule is used for spinning instead of the water frame, then cards are usually put below, because they are the heaviest and most powerful machinery.”

Show the children the diagram of a section through North Mill from Ree's Cyclopaedia included in this pack. Let them count the floors and see the diagrams of the machines on each floor. Let them discover what the roof space or sixth floor in North Mill was used for. It was a school room. This was Jedediah Strutt's first school until a proper school was built in 1818 at the bottom of Long Row. The children will see this school on their tour of the industrial settlement of Belper and learn more about schooling in the past, although the school was rebuilt by the Strutt family in the 1870/80s, so the children will not be able to see the original building.

The staff at the Mill can explain the terms used in this article and demonstrate the various operations, such as carding and spinning, and let the children see a working model of Richard Arkwright's Water Frame during the tour.

The children could draw diagrams on their plan to show how the space is used today.

What is it made of? Is there anything unusual about the building and how it is constructed?

The construction of the interior space.

It is important that the children understand something of the construction of this space and building in order to appreciate the revolution in fire-proof design William Strutt was able to achieve through the use of non-combustible materials.

Some background information.

Cotton Mills were dangerously easy to catch fire. The materials used in the building, wooden floors, wooden beams, wooden columns, wooden window frames and wooden roof structures, could very easily catch fire. The materials used in the Mill were also easy to set on fire: candle wax from the many candles or oil from oil lamps used to light the mills at night, oil to oil the machines which soaked and dripped into the floor, cotton waste lying on the floor, all this combined with the cotton dust which was very explosive. All that was needed was for someone to let a lighted candle fall on the floor unnoticed and the whole building could burn down. This did, in fact, happen to the first mill built by Jedediah Strutt on this site, North Mill, which was actually the second mill he built. The first mill was South Mill. In 1803 North Mill caught fire and burnt to the ground. The building you are standing in was rebuilt by Jedediah's son William in 1804. William had been learning how to construct a fire-proof building and this building shows the results. It is one of the first fire-proof buildings to be built. Let's look at the materials he used. The columns are made of cast iron (metal). The floors are made from bricks and tiles which are supported on wrought iron ties (metal). *(The wooden slats are later additions.)*

Which materials burn?

Curriculum links to follow up back at school.

(links to science and materials)

The children could have a collection of materials, including bricks, plaster, stone, wood, candle wax, oil, cotton wool and metal. They could be asked to sort the materials into those they think would burn and those they think would not burn.

Show the children the picture of the cast iron columns. See if they can spot them and count how many there are. Are there as many as can be seen on the plan? *(The reason there are not is that part of the ground floor has been incorporated into the building which joins North Mill. You will notice how this works if you look at the building from the outside in the yard looking at the east side of the Mill. Count how many windows there are from the door to the wall on the left inside the building, and compare this by looking from the outside, looking to count the windows to the right of the door.)* See if they can see the brick ceiling, covered in plaster and whitewashed. These materials were not easy to set on fire so the mills became much safer places to work in.

What sort of people worked here?

The volunteers at the Mill will talk to the children about the women and children that worked in the Mill and the different jobs they had to do. They will tell the children why mainly women and children were employed in the Mill. They will also talk about the very strict discipline that was imposed on the workforce and the fines that were given out for disorderly behaviour.

KEY QUESTION TWO

The children will learn about the Nailers. The Nailers existed in the town for over 600 years before the Strutts arrived. Belper was an industrial town before the mills were built. The Nailers included the men of the mill families, the husbands and fathers of the women and children that worked in the Mill. They made nails by hand in workshops. They were often self-employed. The Nailers had a reputation for very disorderly behaviour and keeping their own working hours in sharp contrast to the mill workers.

Back at school the children can use reference material to help them find out what it might have been like to work in the Mill.

A) Places Of work Nailshop, Joseph Street, number 8

Background information for teachers

The nail maker's shop, a rare survival, is constructed of coursed stone with a tile roof, brick chimney and cast iron windows. This is a single nailshop; far more typical in Belper were the rows of nailshops (perhaps five or six under a single roof), but no more than one or two of these have survived, all of them altered drastically.

As early as 1790, Strutt had built a nailshop next to one of his cottages. His interest in nailing was solely to provide work for the male members of the families living in his cottages. There is also evidence he invested in framework knitting workshops to achieve the same purpose. The nailers' workshops were extremely simple. Often attached to the cottage, or built at the end of the garden, they contained only an anvil, hearth and bellows.

Nailmaking in Belper

Nailmaking was Belper's greatest industry before the arrival of the cotton mills. By the middle of the nineteenth century about 400 nailmakers lived and worked in the town. This had fallen to 38 by 1901, thanks to the arrival of machine made nails, and it was only a few years later that Belper's oldest industry disappeared. (A picture of a nailmaker outside his nailshop is included in the pack in the section on using resources to find out about the past)

For more information about nailers go to the website www.bbc.co.uk/legacies/work/england/derby/article_1

Key questions to use with the children to help them investigate the building

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Is there anything unusual about it?

Fieldwork

What does it look like?

Ask the children to describe the building. Has it any windows? Has it a door? Has it a chimney? What shape is the roof?

How big is it?

Ask the children to think whether or not this is a big building or a small building.

What is it made of?

Ask the children to make a drawing of the building and annotate it to show what materials each part is made of.

What is it used for now?

Ask the children to see if there are any clues to show how it is being used.

What was it used for in the past?

Tell the children that 200 years ago a man worked in this building, that he was a nailmaker and that he made nails by hand. He used rods of iron that he cut to the right length and then, using a hammer, hammered them into shape. He would have used a small forge to heat the metal so that it could be worked. He had to make a lot of nails every day. He made 1,000 nails a day.

Is there anything unusual about it?

Well, what do the children think? It wasn't unusual at the time to have a workshop attached to a cottage where the man of the family worked making nails. It is unusual now when most people go out to work in a factory or office. It is a rare survival that tells us about working lives in the past.

B) Places of worship The Unitarian Chapel and Chapel Cottage, Field Row 1788

Background information for teachers

The Unitarian Chapel was built by Jedediah Strutt and, apart from the mills, is believed to have been one of the first buildings constructed in the industrial settlement of Belper. Jedediah Strutt is thought to have adopted the Unitarian faith sometime after his arrival in Belper. The Chapel is a striking example of austere nonconformist architecture built in ashlar with a hipped slate roof. The Chapel was extended on each side early in the 19th century so that in its present form it is three times its original size. The façade to Field Row has a round-arched entrance with a keystone. An external cantilevered stone staircase gives access at first floor level to the gallery. A marble plaque commemorates the life of Jedediah Strutt. The catacomb below the Chapel contains the remains of a number of members of the Strutt family.

For a short history of nonconformist religion see the website www.belper-research.com follow 'About this website' and at the bottom of the page, click on 'Introduction Page'. Several words are highlighted that lead to various pages giving information about the Chapel as well as a slide show showing pictures of the exterior and interior. Or go to The Beehive Local Community online, [www.beehive.thisisderbyshire.co.uk/Local History](http://www.beehive.thisisderbyshire.co.uk/Local%20History) and look for Belper Historical and Genealogical Research.

The Chapel cottage which adjoins is thought to have been built soon after the Chapel itself, though the kitchen extension, which is housed in a vaulted space beneath the Chapel, cannot have been constructed until the Chapel was extended early in the 19th century.

The extensive water power system of the Strutts' Belper mills as shown on the Ordnance Survey 1:500, 1880

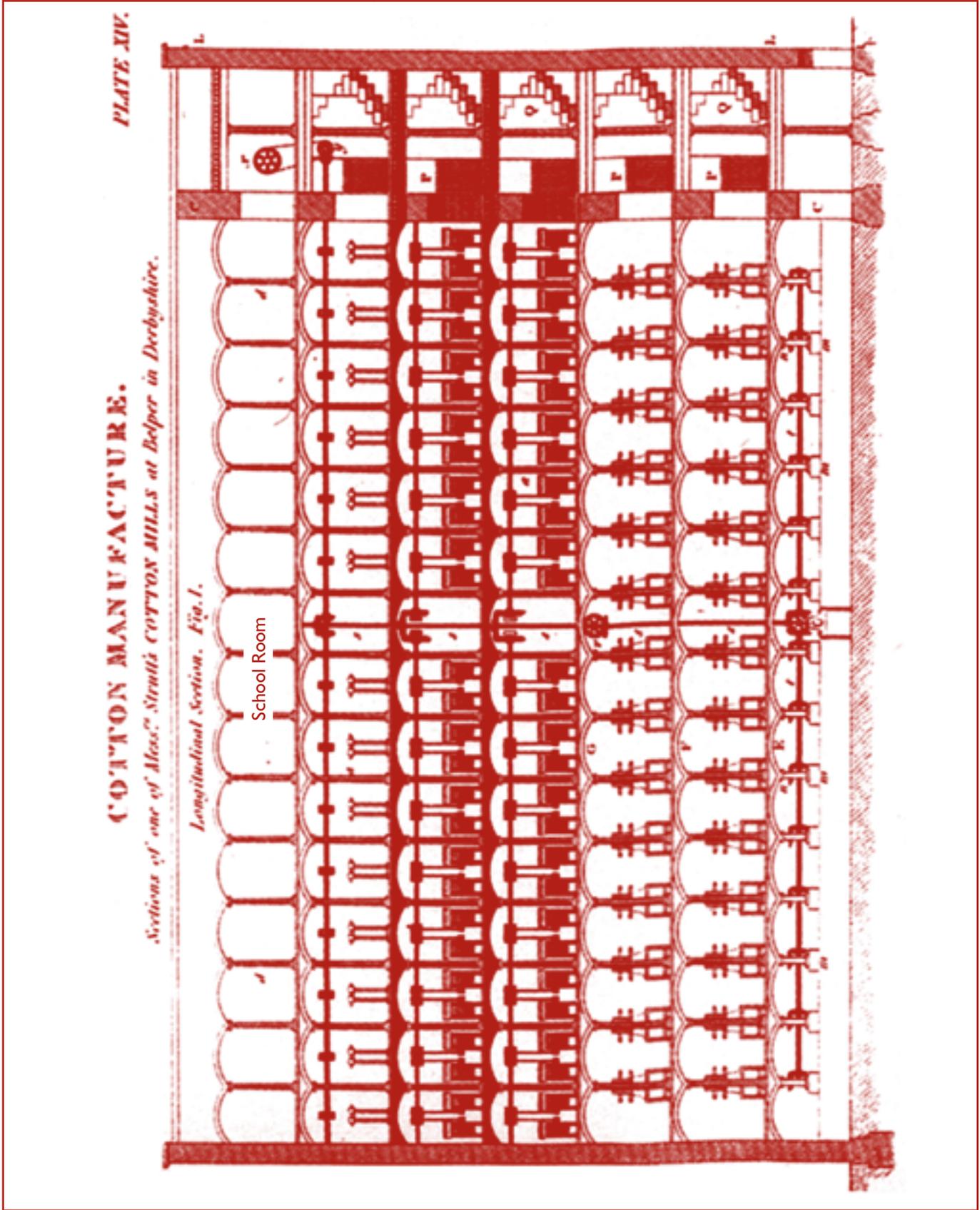


After exploring the site:

- colour the river and the water courses **BLUE** to make them stand out
- colour the mills **RED**
- colour the roads and bridge over the river in **YELLOW**.

See if you can work out where North Mill is on this map.

A cross section of Belper North Cotton Spinning Mill from Rees' Cyclopaedia



RESOURCE SHEET 2(2)

How many storeys or floors are there in this building?

Can you find the staircase?

The first two floors were used for the spinning frames.

Why?

What job does a spinning frame do?

The third and fourth floors were used for the carding, drawing and roving machines.

What job does the carding machine do?

The fifth floor was used for reeling, doubling and twisting the finished thread.

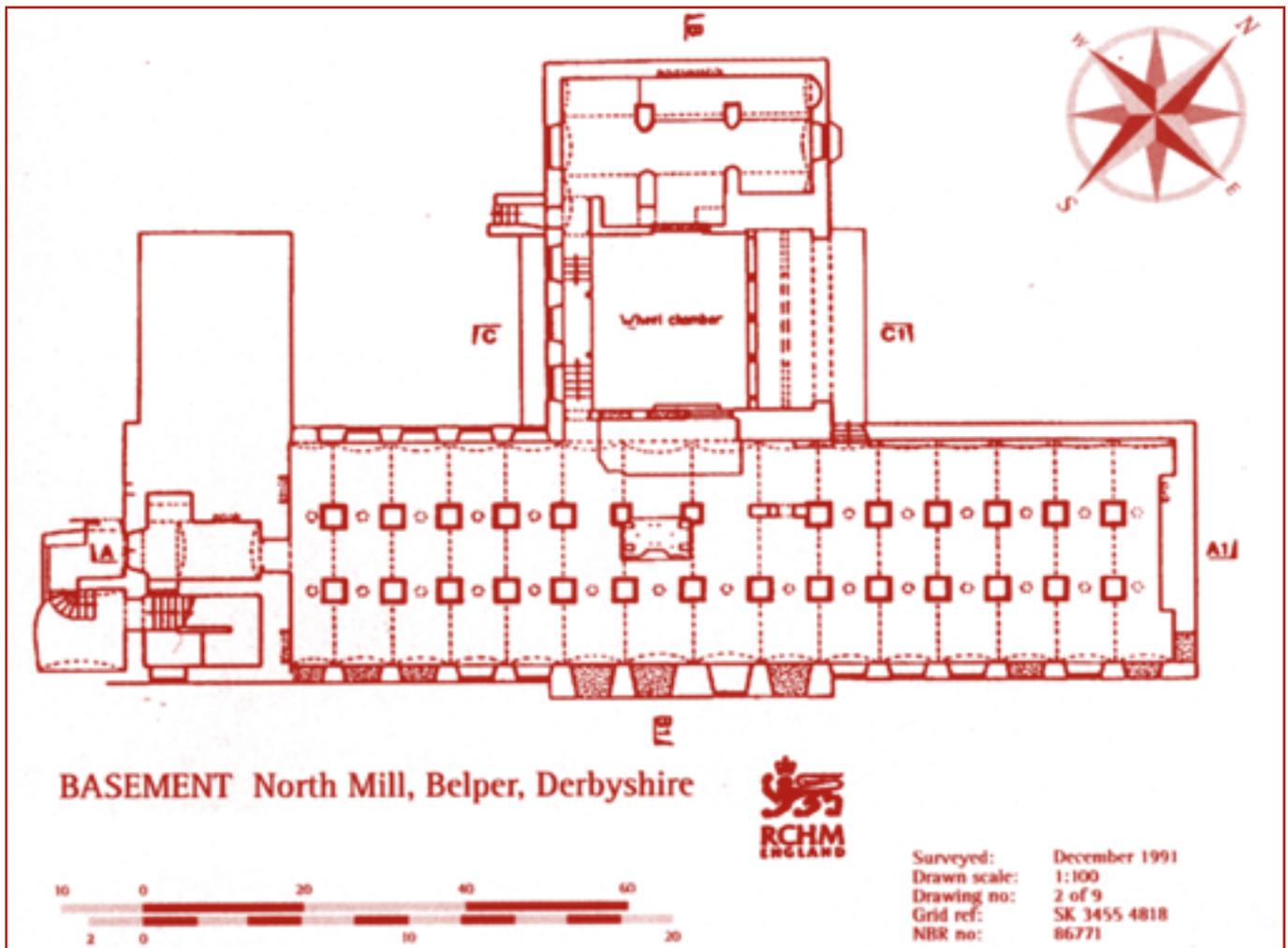
What is meant by reeling?

What was the top or attic floor used for?

What were children doing in the Mill?

RESOURCE SHEET 3(2)

Plan of the BASEMENT of Belper North Mill



Draw diagrams to show how the **GROUND FLOOR** is used today.

Make a key to show the different things that there are in the Mill.

RESOURCE SHEET 4(2)

A picture of the interior of a cotton spinning mill



Who worked in the cotton mill?

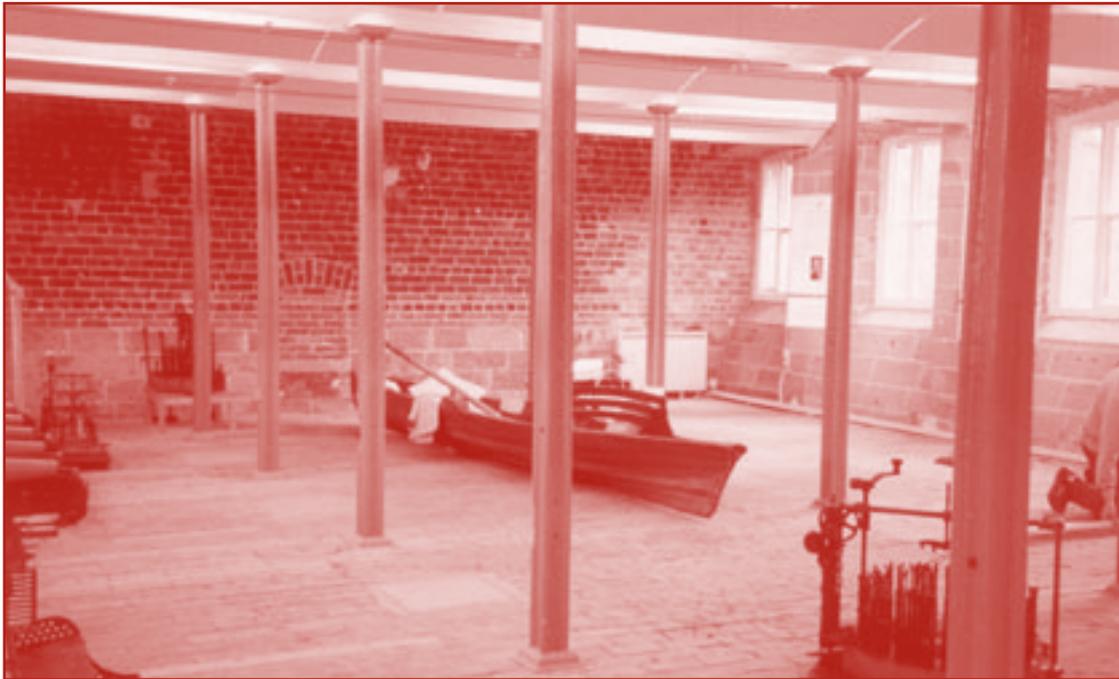
What jobs did they do?

Describe what it was like to work in the cotton mill in the past.

What were the punishments for bad behaviour?

RESOURCE SHEET 5(2)

Picture of a cast iron column



Why were cast iron columns used instead of wooden ones?



Picture of the brick arched ceiling

Why were bricks used for the ceiling instead of wooden floors?

Why were the bricks laid in an arched shape?

KEY QUESTION TWO

Glossary

Unitarian

A person who believes that God is one being and rejects the doctrine of the Trinity.

Unitarianism

A system of Christian belief that maintains that God is one person, rejects the Trinity and the divinity of Christ, and takes reason, conscience and character as the criteria of belief and practice.

Chapel

A nonconformist place of worship (although side chapels are found in churches).

Nonconformist

A member of a Protestant denomination that dissents from the Church of England.

Catacomb

Crypt or room below the chapel used as a place to bury the dead.

Ashlar

A block of hewn stone with straight edges for use in building.

Key Questions

Exploring Belper Unitarian Chapel

Use these questions to help the children investigate the building.

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Has it always been used for this?
- Is there anything unusual about it?

The staff at North Mill can take groups on a pre-arranged guided tour of the industrial settlement of Belper which can include a visit to the Unitarian Chapel. Arrange to have a visit to the inside of the Chapel, if possible.

Outside

When you arrive on site you will go through a gate into the graveyard. Stand and look at the building. Ask the children to tell you what they think the building is used for. They will probably find this rather difficult as it does not look like a conventional church or even a chapel. The gravestones might be the only clue. The children could draw a sketch of the outside, annotating the drawing to show the materials used in its construction: gritstone ashlar blocks, slate roof and coloured glass windows. Make sure they look carefully at the details, the arched window, the two square windows (how many small panes of glass in each), the arched door with keystone, the stairs leading upstairs to a doorway. Look for any clues to tell you what it is used for, for example the gravestones, and the sign on the gate. The guide will tell the children about the building.

Go inside

Allow the children to explore the interior of the building in a respectful manner. Ask the children to think about the size of the interior of the building. Is the inside of the building large or small? Ask the children if they can tell you what this building might be used for. Ask them to look for clues. Do they think a lot of people or only a small number of people could use this building? Do they think the people would stand or sit down? Count the number of seats. How are the seats arranged? Are they all on one level or on different levels? Why do they think this might be? What material are the seats made of? Describe the seats. Is there a focal point in the room? If so, what is it? Is the room decorated in anyway or is it very plain? Ask the children to attempt to tell you what is different about this place of worship to others they may have been inside, (*links to the art curriculum Unit 2c 'Can buildings speak?', and to the R.E. curriculum to study Places of Worship.*)

The guide from North Mill will tell the children something of the history of the building and the children could carry out more research into the building, back in the classroom, to do with baptisms and burials, which will help the children understand what the building was and is used for. The children could sketch the interior and make notes about the unusual features of this space. They could copy out some of the words on the plaque.

Research material that could be used back in the classroom includes:

- The transcript of the deeds downloaded from the website
- A sketch plan of the Chapel
- Burials (transcribed from a board in the Unitarian Chapel)
- Baptisms (transcribed from documents in the Matlock Record Office).

See for the above www.belper-research.com and look at the content and index to Findings: Place, Belper Births, Belper Burials and the Belper Unitarian Chapel.

You may want to follow up this visit with an explanation of the different form of worship carried out by the congregation of the Unitarian Chapel, maybe a Unitarian Minister would come into school to answer the children's questions, such as why does the arrangement of the seating inside the Chapel look so different from the way seats are arranged inside a Church of England Parish Church.

Contact: Rev Christopher Goacher, 24 Lindsey Close, Derby DE21 6DG. Telephone 01332 732171

Ask the children to investigate these questions:

- What are the surroundings like?
- Why do you think it was built here?
- Who do you think might have used this building?

These are interesting questions for the children to think about. The Chapel was built by Jedediah Strutt for his own personal worship and for his family. Jedediah Strutt

KEY QUESTION TWO

was a Unitarian. He built the Chapel in the middle of the first houses he built for his workforce at the Mill, the Short Rows. He must have wanted those of his workforce who shared his Unitarian faith to be able to have a place of worship near to where they lived, in a building that was built for the purpose rather than the original rooms that had been used in the town centre. He must have had concern for their spiritual welfare.

Back at school, the children could look at an early map of the area and locate the Unitarian Chapel, the houses and the mills and see that all were in walking distance of each other.

C) Schools Long Row Mill School

Background information for teachers

Long Row Mill School was built by George Benson and William and Joseph Strutt in 1818.

As we have seen, the first school room at Belper was in the attic of North Mill. In July 1785, Mr Jedediah Strutt opened a Sunday School for mill children in his cotton mill, and the Derby Mercury, August 1785, reported that he was “an example worthy of imitation by all whom Providence has blessed with Affluence supplying free all the necessary Books etc for learning to read and write. This school was opened on July 3, and 120 Scholars have already been admitted.”

At Long Row Mill School or Strutt School, children old enough to work paid one penny a week for their schooling until the charge was abolished by Jedediah Strutt II, son of George Benson Strutt and the grandson of the original Jedediah Strutt, on the 3rd March 1837. Those too young to work were taught free of charge. The money was deducted from their wages. Some of the Strutt School Admission Records from 1818 onwards have been transcribed by Caroline Densham and are available on the world wide web (see address below).

About the Records

The records transcribed by Caroline Densham related to the admissions to the schools provided by Messrs. WG and J Strutt Ltd., of Belper, from when they began on 134th April 1818 until 1849. Information includes name, age, residence, father’s occupation, date of admission, date of leaving, any observations, and reasons for leaving. There were separate schools for the Boys and Girls. Extracts from these records will be used in the section of this resource which enables children to find out about the past from different written sources.

Please note that the building the children see today is not the original school building of 1818 but the one virtually rebuilt in the 1870/80s by the Strutt family.

See an article on ‘Schooling and Employment’ in the Mills by Caroline Densham <http://www.genuki.org.uk/big/eng/DBY/Schools4Mills.html> (or if this does not work try a search for – GENUKI:Schooling and Employment

in the Mills, Derbyshire) and also transcripts of the Field Row School Admission Records from 1818 <http://www.genuki.org.uk/big/eng/DBY/Belper/StruttSchoolindex.html>

Long Row School Key Questions

Use these questions to help the children investigate the building:

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Has it always been used for this?
- Is there anything unusual about it?
- What are the surroundings like?
- Why do you think it was built here?
- Who might have used this building?

Background information for teachers

The staff from North Mill will tell the children something of the history of the building. The children will discover that it has been used as a school since 1818 and that children have been learning to read and write in this building for nearly two hundred years. They will learn that when the school was built it was really two schools, one for boys and one for girls. They will learn that the school had one teacher, who would teach the older ones. Then these children taught the younger children. This was called the Lancasterian Method.

About the Lancasterian Method

Two early pioneers in the field of mass education for the poor were Andrew Bell and Joseph Lancaster. They both claimed that one teacher, using the older pupils as monitors, could teach one thousand children. A single master educated the older boys who, in turn, passed on their knowledge to the younger boys by rote. Followers of Lancaster formed a committee to encourage the foundation of such schools in 1809 which, in 1814, became called the British and Foreign School Society. Such schools, founded by local efforts, would offer undenominational religious teaching. The Established Church promoted a rival National Society for Promoting the Education of the Poor in the Principles of the Established Church to encourage similar schools, but based on Andrew Bell’s principles and under which local clergy would retain control. Extract from an article by Caroline Densham called Schooling and Employment in the Mills and available to view on the web. GENUKI.org.uk

Back in the classroom

Back in the classroom, the children can use extracts from the transcripts of the Belper British Boys School and the Belper British Girls School Admission records, available from the above website, to learn more about the children that went to the school in the past. For example, information is provided in the records of the age of the children when they were first admitted to school, when and

KEY QUESTION TWO

why they left school, where they lived and what their father did for a living. It would be possible, for example, to look for children that lived in one of the streets that the children visited on their fieldwork visit to Belper, such as Long Row.

Fieldwork

What can local buildings tell us about the past?

The staff from Belper North Mill will include a stop at Long Row School in the itinerary of the tour of the industrial settlement of Belper.

Using the key questions to help the children investigate the building

What does it look like? How big is it?

What is it made of?

Ask the children to stand outside the school building. Ask them to describe some of the features of the building. Has it got big or small windows? Has it got roofs at different levels? Do some of the windows reach the roof? Are there a few or many windows? Has it got more than one storey or floor? Has it got chimneys? Has it got one or more doors? Ask them to say what materials have been used in the building. Ask them to make a sketch of the building including all its features and annotate their drawing to record the different materials used in its construction.

What is the building used for now?

Ask the children to stand outside the gates of the school and ask them to tell you what they think this building is used for. Ask them to look for clues that might help them decide.

What was it used for in the past?

Tell the children that this building was used as a school in the past. Explain that it was built by the Strutt family, the family that owned the mills, for the children who worked in the mills. Say that it was built a long time ago, in the 1870s/1880s, but that this building replaced the first school built by George Benson, William and Joseph Strutt, the sons of Jedediah Strutt, in 1818.

Has it always been used for this?

Well, since 1818 there has always been a school on this site.

Is there anything unusual about it?

Perhaps the children can decide. It has large windows. It is very big. It has parts that are only one storey or floor high and other parts that have several floors. It has gates. It is surrounded by tarmac.

What are the surroundings like?

Ask the children to describe the surroundings. Is there a road nearby? Are there houses nearby? What is the road like? What are the houses like?

Why do you think the school was built here? Who do you think might have used the school in the past?

Ask the children to think about the families who lived around the school in the past. Tell the children that the families, especially the women and children, would have worked in the Mill. The children had to go to school.

In 1833, The Factory Act, which applied to all children employed in the textile or cotton mills, stated that all children under 13 had to attend school for two hours a day. Schools were typically open from 6.30 in the morning until 6.30 at night. The children were taught by a mistress and two young persons. In 1838 records show that 84 boys and 119 girls were attending the school in Belper. The children were probably taught in seven sets which must mean that groups of children came to school at different times of the day. Both boys and girls were taught to read and write and girls were also taught sewing and knitting for about half their time. Tell the children that the school was built here because it was close to the Mill where many of the children worked and to the houses where their families lived.

D) Houses

Strutt housing in Belper

Background information for teachers.

The industrial revolution began in the Derwent Valley in Derbyshire with the building of the cotton mills at Cromford, Belper, Milford and Derby. These buildings were new structures in the urban landscape. The mill owners, Richard Arkwright, Jedediah Strutt and Thomas Evans, were enlightened employers who displayed a strong sense of responsibility for their workforce, their dependants and for the communities that came into being to serve the new industrial system. As such, the developments at Cromford from 1776, at Belper, beginning in 1776-7, at Milford in 1781 and Darley Abbey from 1782 provided early models for the creation of industrial communities. Each man built decent housing for their workforce as well as other amenities which were needed to build the community, such as shops, markets, schools, chapels and, in Belper, Pleasure Gardens. The mill owners experimented with various house types and there are good examples of several types in Belper. These settlements are the first experiments with building housing and communities for an industrial workforce.

Much of the Strutt industrial housing stands on land to the South of the mill complex and to the East of the Derby-Matlock road. The land was acquired largely through numerous individual purchases, with its end use for workers' housing clearly in mind. The Strutt settlement would have been separated from the older town of Belper, which was built on the hill top, by a green no man's land nearly a quarter of a mile in width. The older settlement, based on agriculture and nailing, had been growing steadily as a market centre even before Jedediah Strutt planted his first mill nearby, and it is clear that this growth continued along-side, and was further stimulated by, the later Strutt investments.

Choosing a community which already had an economic infrastructure meant that the Strutts were spared some of the problems which faced Richard Arkwright in Cromford, a smaller and less developed community. Belper had a market place, public houses, shops and a chapel. The town was important for its nail making and farming was an important occupation in the surrounding countryside. From

KEY QUESTION TWO

1801 the town also had a rapidly growing hosiery business which, although a home-based industry, was established by John Ward and others and later including George Brettle. By 1830 the one business had become two and Belper could claim two of the largest hosiery firms in the country. The hosiers bought yarn from Strutt's, they also provided further employment in the town in the warehouses and mending rooms so helping to sustain Belper's accelerating growth.

The Strutts' first purchases of land were associated with securing sites for the building of the mills. In Belper, almost all the purchases between 1777 and 1786 related to the mill and the acquisition of land which controlled the river.

In Belper, it was not until 1787-88 that Strutt made the crucial purchase which would enable him to build his chapel and the houses around it, the Short Rows. By 1801, there were 893 houses built or being built in Belper, an increase of 460 over the estimate made by Pilkington in 1789. Thus, in 1801 Strutt owned some 280 houses, or about a third of the total number of houses in Belper. It is clear from this, however, that Belper never truly became – 'Struttville' – a company town with total ownership of the settlement in the mill owner's hands, as was the case in Cromford or Darley Abbey.

During the 1790s, the Strutts turned their attention to building up their estate on which to build workers' housing. The buying of land was made possible by the Enclosure Act of 1791 which brought with it many opportunities to purchase small parcels of land.

There is no obvious pattern to the Strutts' house building. The earliest housing, which is thought to be Short Rows, close to the Chapel of 1788, was on the meanest scale, some, if not all, originally containing two rooms, one-up and one-down. This was followed in 1790 by the back-to-backs in Berkin's Court; but by this time, houses of better quality, three storey houses, were being built at Belper Lane. During the years of 1792-97 the bulk of the three-storey houses in Long Row, Hopping Hill and Smith's Court were built. Finally, concluding the first phase of house building, the Belper cluster houses were added in 1805.

The houses were all of a high standard with gardens and, in certain areas, allotments for the residents. The housing, constructed from Derbyshire gritstone or locally made brick, and roofed with Staffordshire blue clay tiles or Welsh slate, was largely placed in an East-West alignment connected by narrow passages giving an almost grid-iron character to the layout. Construction of housing by the Strutt estate continued into the 20th century. The houses vary from row to row as the Strutts' experimented with different designs. The result is a visually cohesive, attractive and unique mix of workers' housing.

During the tour of the industrial settlement of Belper the children will be shown three different house types: one-up one-down housing in Short Rows, three storey houses in Long Row and the blocks of four houses built together in the Clusters.

The rent books, which include all known Strutt housing, demonstrate how rent was collected through deductions from the wages of the member of the household who worked at the mill. The variety of house types in the Strutt housing stock and the range of rents charged to the residents leaves no doubt there was a hierarchy. The best houses, the Clusters or Field Row, could cost 4s 6d (22½ p) per week while, at the other end of the scale, a house in Short Rows could be as little as 1s 3d (6p). The houses in Long Row were around 2s 6d (12½ p). What is not clear is how the houses were allocated. From the tariff it seems unlikely it was arranged on the basis of family size. (Extracts from the book Derwent Valley Mills and their Communities)

What were houses used for in the 1780s

The children should be told that the way people used houses in the 1780s was very different from today. A house was really used for little more than sleeping, eating, some cooking and washing of clothes. There was no indoor toilet, no indoor water supply, water was got from the pump which supplied the whole street, and there were no single bedrooms. The children could be asked what their houses are used for today and to make the comparison. Tell the children that the gardens would have been used to grow vegetables and fruit in the past with very few flowers. Ask them to think about how we use gardens today. Tell the children that in 1780s the people had no free or leisure time.

The children will be asked to look at three different house types: the one-up-one-down houses in Short Rows, the three storey houses in Long Row and the cluster houses in Joseph Street. They will use the same questions to investigate the three different house types so that a comparison between the designs of the houses can be made.

HOUSING TYPE ONE

One-up one-down houses in Short Rows Background information for teachers

Short Rows was one of the first groups of houses to be constructed by the Strutts in Belper. They were built adjacent to the Unitarian Chapel of 1788. The Short Rows originally comprised four separate rows of largely one-up one-down cottages containing 47 houses in all. The houses are built in red-brick with slate roofs and brick chimneys. Good examples are numbers 46 and 47 Short Rows and Mill Street (which was part of the original Short Rows) numbers 18 and 20.

Key questions to use with the children:

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Has it always been used for this?
- Is there anything unusual about it?
- What are the surroundings like?

KEY QUESTION TWO

- Why do you think it was built here?
- Who might have used this building?

Fieldwork

What can local buildings tell us about where people lived in the past?

Using the key questions with the children to help them investigate the houses.

A visit to Short Rows will be on your itinerary as part of the tour of the industrial settlement of Belper.

Please note: these houses are all privately owned homes and children should not be encouraged to look in windows or knock on doors.

What does it look like? How big is it?

What is it made of?

Ask the children to say what they think the building looks like. Ask the children to describe the features of the building. How many chimney stacks does it have? How many floors does it have? How many doors does it have? How many windows does it have? Is it a long or a short building? What clues could help them decide? What is the land around the building like? The children could be asked to work out what materials have been used to build the building.

What is it used for now?

Ask the children what they think the building is used for. They could look for clues. They are used for people/families to live in. Ask the children how many different families could live in this building.

What was it used for in the past? Who might have lived in this building in the past?

What was it like to live in this building?

The Tour Guide will be able to tell the children about the mill workers who lived in this building in the past, how many families lived in the building, what rent they paid, how many people might have lived in each house and why the houses had a garden. Talk to the children about how people used the houses in the past and how the houses have been adapted to meet the needs of people living in them today.

Has it always been used for this?

Yes, the building has always been used for people to live in but the families no longer work in Strutt's Mill.

Is there anything unusual about it?

Yes, the building is unusual because it is made by joining up several houses together into one short row called a terrace. They were built like this to save on building materials. Each house shares one inside wall. Each house was built with one room down-stairs and one room upstairs. What clues are there to show this?

What are the surroundings like? Why do you think the terrace was built here?

If the children look around they will see that this whole area is used for houses. They should also remember that the houses are not far away from the Mill. That indeed they, the children, have walked from the Mill to look at the houses today. The houses were built near to the Mill by

the Strutt family for the people who worked in the Mill.

HOUSING TYPE TWO

Three storey houses in Long Row 1792-97

Background information for teachers

This is industrial housing of a high quality. There were originally 77 houses in the Long Row. It was built in the form of three terraces, two of which were continuous until broken by the north Midland Railway in 1840. The 35 three-storey houses are constructed predominantly in sandstone with a continuous sloping eaves line. They are designed with interlocking plans formed around the staircase. The southern two-storey terrace is constructed primarily in brick and ascends the rising ground in stepped pairs. Each house has its own garden with allotments behind. There are 62 dwellings in all. There is now a gap where eight houses were knocked down to allow for the cutting for the railway to run through Belper.

Key questions to use with the children:

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Has it always been used for this?
- Is there anything unusual about it?
- What are the surroundings like?
- Why do you think it was built here?
- Who might have used this building?

Fieldwork

What can local buildings tell us about where people lived in the past?

Using key questions to help the children investigate the building

A visit to Long Row will be part of the tour.

Please note: these houses are all privately owned and children should not be encouraged to look in the windows or knock on doors.

What does it look like? How big is it?

What is it made of?

Ask the children to say what they think the building looks like. Ask the children to describe the building. Is it long or short? How many storeys or floors does it have? How many windows does it have? How many chimneys stacks does it have? How many doors does it have? How many front gates does it have? Is it a big building or a small building? Where does it begin and where does it end? What clues could help them decide? The children could be asked to work out what materials have been used to build the building. Look at the roof, the doors, the windows and the walls. The children could draw an annotated sketch of the building.

What is the building used for now?

Ask the children what they think this building is used for. They could look for clues. The building is used for people/families to live in.

KEY QUESTION TWO

What was the building used for in the past? Who might have lived in this building in the past? What was it like to live in this building?

The Tour Guide will be able to tell the children about the mill workers who lived in the houses in the past, what rent they paid, how many people might have lived in each house, why the houses had a garden with allotments behind and where the families got their food from. Talk about how people used houses in the past and how the houses will have been adapted to meet modern needs.

Has the building always been used for this?

Yes, the building has always been used for people to live in but the families no longer work in Strutt's Mill.

Is there anything unusual about the building?

Yes, the building has three storeys or floors. It has lots of chimney stacks, doors and windows. The building is a made of a long row of houses joined together called a terrace. The reason that lots of houses were joined together like this into one big building was to save on building materials. Each house shares an inside wall with its neighbour. What clues are there to show this? The plan is also unusual because the house plans interlock around the staircase. It may be possible to work this out by looking at the arrangement of the windows. The line of the roof is sloping to follow the slope of the hill or the lie of the land. This means that each house is a step up from the next and the height of each building is adjusted inside around the staircase.

What are the surroundings like? Why do you think the building was built here?

If the children look around they will see that this whole area is used for houses. They should also remember that the houses are not far away from the Mill and that the people could walk from the Mill to the houses. The houses were built near to the Mill by the Strutt family for the people who worked in the Mill.

HOUSING TYPE THREE

Cluster housing in the Clusters 1805

Background information for teachers

The houses are designed on an innovative plan to save building materials, an idea that was first tried out in Darley Abbey in 1792. One example to be seen in Darley Abbey is The Four Houses block of housing. Each building is made up of one block which is divided north-south and east-west to form a block of four back-to-back houses. Each block is sited in the centre of a large plot of land and, as they were built, each house has a building in the garden incorporating a privy (outside toilet) and a pigsty. At 6 Joseph Street the privy and pigsty have survived in a building constructed in coursed stone. These houses were the first choice for the most important members of the workforce, the overseers.

Key questions to use with the children:

- What does it look like?
- How big is it?
- What is it made of?
- What is it used for now?
- What was it used for in the past?
- Has it always been used for this?
- Is there anything unusual about it?
- What are the surroundings like?
- Why do you think it was built here?
- Who might have used this building?

Fieldwork

What can local buildings tell us about where people lived in the past?

Using key questions with the children to help them investigate the buildings.

A visit to the Clusters along Joseph Street will be part of the tour. Number 6 Joseph Street is a good example, as are number 33 and number 3. Please note: these houses are privately owned and children should not be encouraged to look in windows or knock on doors.

What does it look like? How big is it?

What is it made of?

Ask the children to say what they think the building looks like. Ask the children to describe the building. What features does it have? How many chimney stacks does it have? How many doors does it have? How many floors does it have? How many windows? What is the land around the buildings like? Is there a wall around the land? How many gates and paths are there leading up to the doors? Ask the children if it is a big building or small building. What clues could help them decide? The children could be asked to work out what materials have been used to build the building.

What is it used for now?

Ask the children what they think the building is used for. They could look for clues. Tell the children that it is used for people/families to live in. Ask the children to think about how many families could live in this building.

What was it used for in the past? Who might have lived in this building in the past?

What was it like to live in this building?

The Tour Guide will be able to tell the children about the mill workers who lived in the houses in the past, what rent they paid, where they went to the toilet, how many people might have lived in the house, why the houses had big gardens, where the families got their food from and why there was a pigsty in the garden. Talk about how houses were used in the past and how the houses have been adapted to meet the needs of people living in them today.

Has it always been used for this?

Yes, the building has always been used for people to live in but the families no longer work in Strutt's Mill.

KEY QUESTION TWO

Is there anything unusual about the building?

Yes, the design of this building is very unusual. Show the children a copy of the plan that shows how the four houses are made from one block. See if they can work out how the four houses make the one block by looking at the building again. The building was built like this to save on building materials. Each house shares two internal walls. The houses were also unusual in that they each had a large garden with a pigsty and a toilet in a building in the garden.

What are the surroundings like? Why do you think the building was built here?

If the children look around they will see that this whole area is used for houses. They should also remember that the houses are not far away from the Mill and that the people could walk from the Mill to the houses. The houses were built near to the Mill by the Strutt family for the people who worked in the Mill.

E) Places of Leisure The Pleasure Gardens

KEY QUESTION THREE

What do pictures and photographs tell us about the past?



Purpose

- To find information about the area from studying old photographs and pictures
- To question pictures as interpretations of the past
- To ask and answer questions about the past.

Resources that are included in the pack

- Photograph of mill workers
- Old photograph of Long Row housing, early 1900s
- Drawing of Queen Victoria's visit to Belper
- Drawing of the railway cutting
- Two Drawings of Strutt's Cotton Mills 1811
- Advertisement for Strutt's Mills
- Photograph of the morning room at Bridge House
- Drawing of Bridge House and garden overlooking the town of Belper
- Photograph of a Nailer.

Activity

What do pictures and photographs tell us about life in the past in the industrial settlement of Belper?

Using pictures and photographs

Photographs and pictures are a useful source of information about the past but there is a skill in being able to interpret them.

Give the children pictures (paintings, sketches, photographs, postcards – some are included in the pack) showing how the area has changed. Challenge the children working in pairs, to ask each other questions about each picture. Children's questions are likely to be closed: teacher-directed questions should be more open ended to encourage greater deduction. Ask the children to begin their questions with one of the words: what, where, why, who, how, when. Help them to ask open-ended questions, such as, what does it tell us about the area and the people in the past? What has changed and what has stayed the same? Why might it have been like this? Why might it have changed?

Encourage the children to look closely at the details and compare them with a modern photograph. Ask pairs of children to look at different aspects, e.g. buildings, transport and roads, street furniture and people.

Children can learn to think about how, why and for whom a picture was made. Pictures are not neutral, factual sources of information. They are people's interpretations of events or places. Children will have taken photographs themselves and know that choices have to be made as to what to include in the photograph or have had to wait for the cars to pass before they take a view of a famous building. Children will also be familiar with the idea of being able to change digital photographs by editing then using a computer programme to improve the picture.

The same can be said of drawings, the artist choosing what to include in the drawing and what to leave out or improve. One example of this is included in the pack. It is a drawing made of the Strutt mills to illustrate advertising and trade journals in the 1870s and 1880s. It has been drawn to make the mills look their most impressive. The windowless gable end of the North Mill has been adorned with not only windows but a porch entrance too, the cottages in the North Mill Yard have been converted to shrubbery, and the town beyond has been transformed into a forest. Even more extreme the mills at Milford, also built by the Strutt family, are shown nestling in the background despite actually being several miles down the river. Lead a discussion about why people have pictures made of the local area. Questions on interpretation might include Why and how do you think the picture was made? Who might it have been for? Do you think it is natural or posed?

If there are people in the picture, discuss what may have been happening before the picture was made and what may have happened afterwards. This could lead to role-play or freeze framing as children recreate the story around a picture. Ask the children to write instructions that may have been given to the photographer or artist who created the picture (eg make it look grander, bigger, tidier). Or, to write instructions that the photographer would give to the people s/he was taking a picture of (eg stand still, smile, move to the left so that I can see your eyes).

Lead a discussion to sort the pictures into a chronological sequence and then make a visual time line for the classroom.

ACTIVITY SHEET A3

Using photographs to find out about the past



LONG ROW IN BELPER IN THE EARLY 1900s

Look at the photograph and make up some questions of your own to which you would like to find out the answer.

My question

My question

ACTIVITY SHEET B3

Using photographs to find out about the past

LONG ROW IN BELPER IN THE EARLY 1900s

Look closely at the photograph.

Which of these questions could the photograph of Long Row help you to answer? Look for clues in the photograph to help answer the questions.

Tick the box if the photograph could help answer that question, or put a cross if not.	
What did people wear?	<input type="checkbox"/>
What were houses like?	<input type="checkbox"/>
What games did children play?	<input type="checkbox"/>
What were shops like?	<input type="checkbox"/>
What sort of transport was there?	<input type="checkbox"/>
What was it like at school?	<input type="checkbox"/>
Where did people work?	<input type="checkbox"/>

ACTIVITY SHEET C3

Using photographs to find out about the past

LONG ROW IN BELPER IN THE EARLY 1900s

Look at the photograph of Long Row taken in the early 1900s and compare it with a picture taken in 2004 from the same spot. Identify differences between past and present.

Then

Now

Then

Now

Then

Now

ACTIVITY SHEET D3

Using drawings to find out about the past



ACTIVITY SHEET D3

This is a drawing of the cutting that was made through the middle of Belper to take the railway. George and Robert Stephenson designed this railway. Lots of bridges were built to take the roads that ran through Belper. Eight houses were knocked down in Long Row where the cutting ran through the street.

Look closely at the drawing:
How many bridges can you see?

How many metal rails can you see for the trains to run on?

How many rails did each train need?

What does the number of rails tell us about the way the trains could run along this railway?

The railway has been cut below the ground level. It has been cut through the earth. What holds the sides of the cutting from falling in?

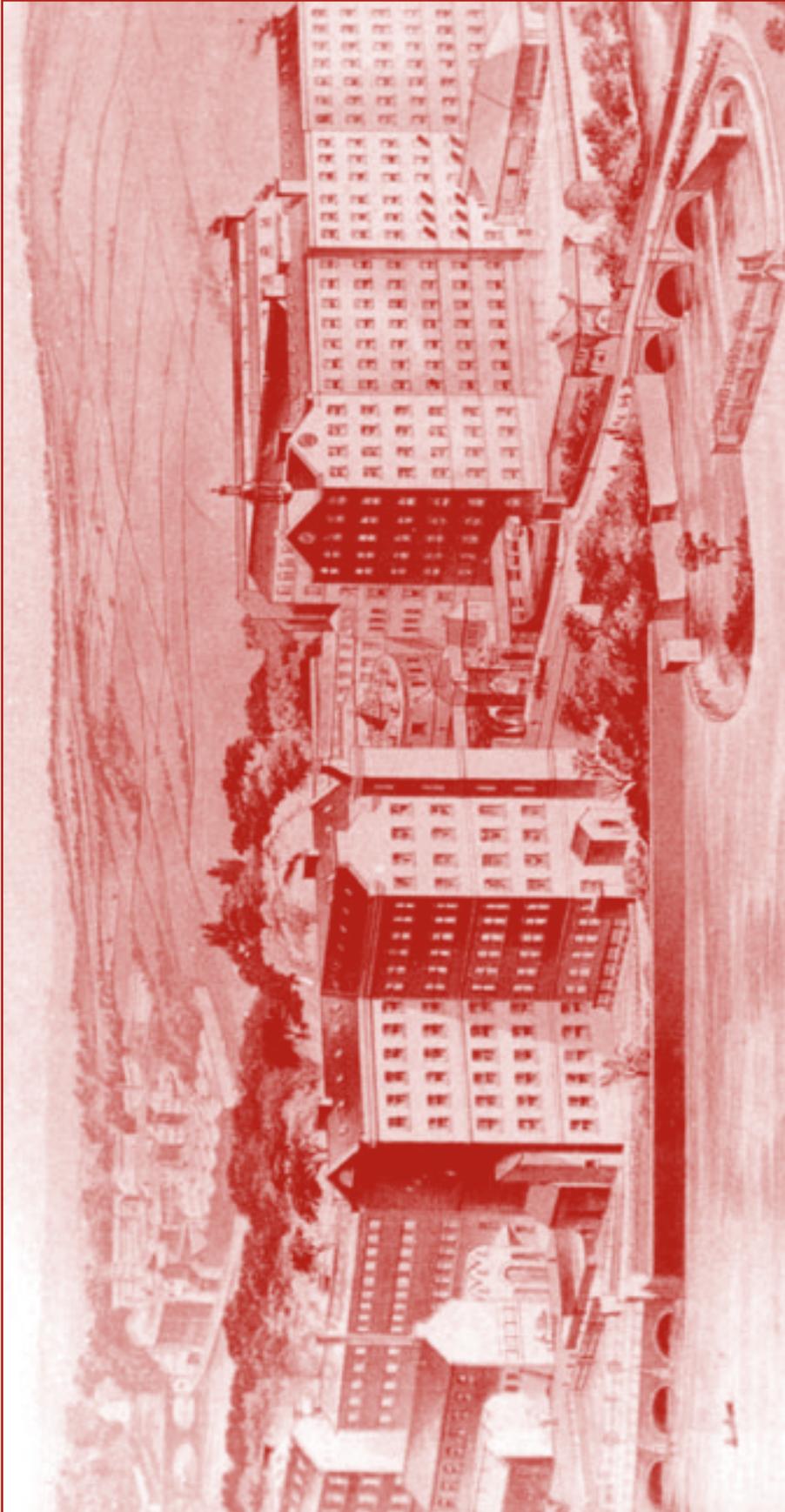
What do you think the man is doing?

Did you know that the railway was built in a cutting so that the Strutt's could not see it from Bridge House!

Have a look on the 1880 OS map and find the railway, the gap in Long Row and Bridge House.

ACTIVITY SHEET E3

**Using drawings to find out about the past
Don't believe what you see!**



ACTIVITY SHEET E3

This is a drawing of the Strutt Mills used in advertising and trade journals in the 1870s and 1880s. Describe the drawing.

What can you see at the bottom of the drawing?

What large buildings can you see?

What can you see in the background?

Why was this drawing made?

Who might have been looking at the advertising and trade journals?

What impression might the Strutt family want to make on their customers?

This drawing does not tell the truth.

Use the OS map that shows the Strutt Mills to help you work out how the artist has changed what was really there to make the Mills look more impressive.

ACTIVITY SHEET F3

Using drawings to find out about the past



9.—SIRUTT'S MILL AT BELPER.

ACTIVITY SHEET F3



This is a drawing of Strutt's Mill at Belper. The artist is standing in the fields looking across the river to the Mills. The drawing was made after 1832 when St Peter's Church was built. You can see the church on the hill.

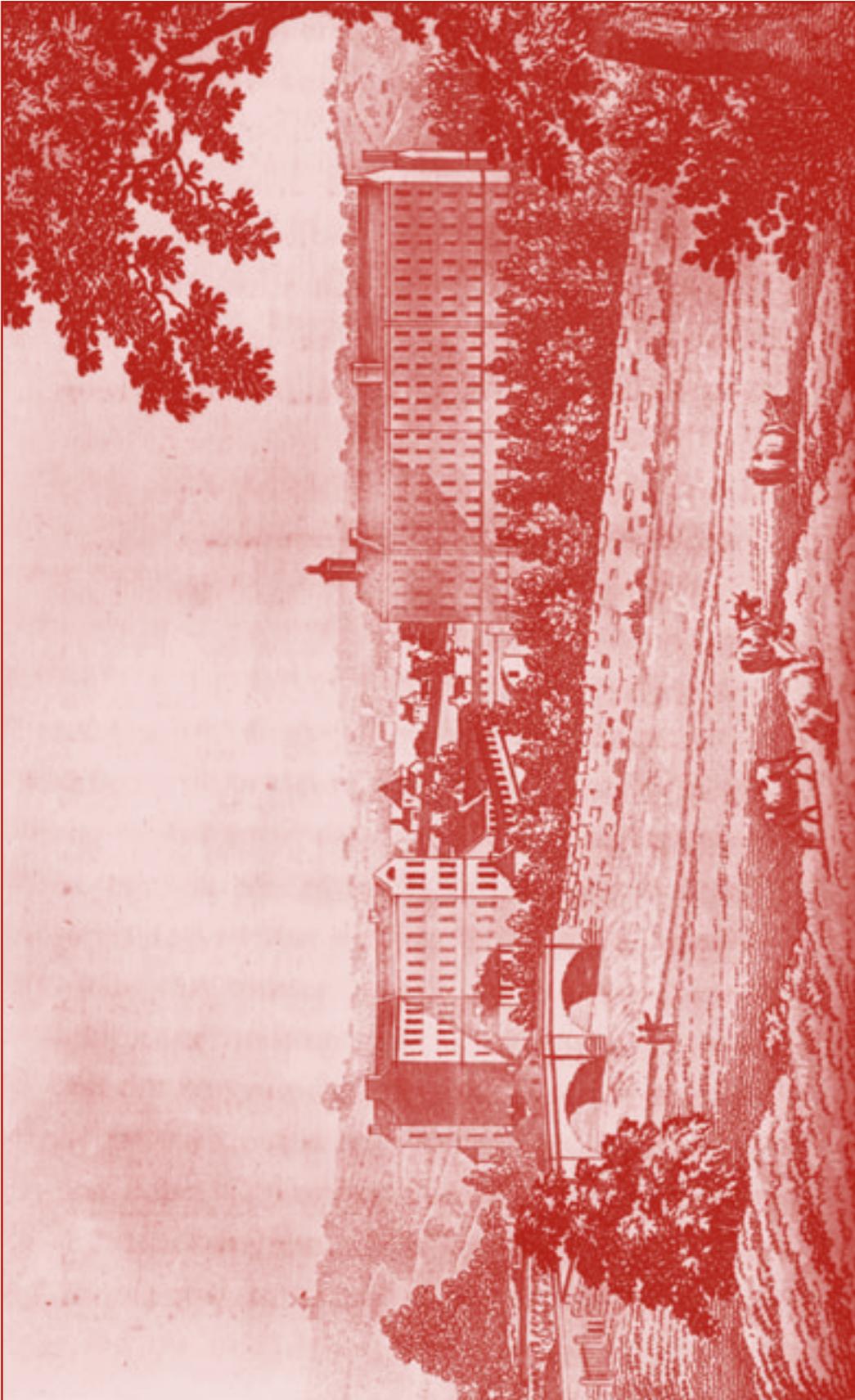
What can you see in the drawing?

Describe what you see

What can you see in the foreground?

What buildings can you see in the background?

ACTIVITY SHEET G3

Using drawings to find out about the past
Drawing of Strutt's Cotton Mills in 1811

ACTIVITY SHEET G3

This is a drawing of North and West Mill. The artist is standing on the bank of the River Derwent looking across the river. The date of the drawing is 1811.

Describe the features you can see in the drawing.

What man made features can you see?

- 1 _____
- 2 _____
- 3 _____
- 4 _____

What natural features can you see?

- 1 _____
- 2 _____
- 3 _____
- 4 _____

Why and how do you think the picture was made?

ACTIVITY SHEET H3

Using photographs to find out about the past



ACTIVITY SHEET H3

This is a photograph of the workers at Strutt's Mills taken in 1895.

In 1895, shortly before the cotton-spinning business was sold on to the English Sewing Cotton Company, the Strutts commissioned photographs to be taken of all their workers. Each section of the Mill's staff gathered for these photographs, and their names were recorded.

Why and how do you think the picture was made?

Who might it have been made for? Do you think it is natural or posed? What does it tell us about the mill workers?

Are there men and women? Are there boys and girls?

What clothes are they wearing?

Which person or people do you think are leading this section of workers?

Using drawings to find out about the past



The caption reads:

A.D. 1832 The Princess Alexandrina Victoria at Belper – The late Mr. Joseph Strutt explaining to her Royal Highness the processes of cotton spinning.

The drawing appeared in the Pictorial Times in 1847 with an article to celebrate the 10th anniversary of Queen Victoria's coronation. By this time Mr Joseph Strutt had been dead for three years. Princess Victoria visited Belper in 1832 when she was 13 years old with her mother, the Duchess of Kent, before she became Queen.

ACTIVITY SHEET J3

What can you find out about the visit by looking at the drawing?

What were the clothes of the Duchess, the Princess and the Lady in Waiting like?

What were the clothes like that Mr Joseph Strutt was wearing?

What were the clothes the woman in the background like?

How are her clothes different from the other ladies?

What is Mr Joseph Strutt showing the Princess?

What object are the Princess and the Duchess looking at?

What is the woman in the background looking at?

Who might she be?

Do you think the drawing is natural, or posed and imagined?

ACTIVITY SHEET K3

Using drawings to find out about the past



BELPER.

ACTIVITY SHEET K3

Drawing made from the garden at Bridge Hill House, George Strutt's home, looking towards the cotton mills and with the town of Belper in the background.

The drawing was made to go with an article about the death of Jedediah Strutt in a magazine called the London Illustrated News, which appeared in 1844.

Look carefully at the picture and describe what you see.

What is happening in the foreground? Who is leading the group? What sort of clothes are the men wearing? Do you think the men are workmen or visitors?

What buildings can you see in the background?

Using photographs to find out about the past
Photograph showing the morning room of Bridge House



This photograph shows the morning room of Bridge Hill House. This was the home of George Benson Strutt. This room may have been used to entertain Princess Victoria when she visited the house in 1832.

We can use this photograph to find out how rich people lived in the past.

Describe the room.

What are the walls like?

What furniture is there in the room?

What is covering the floor?

Do you think this room is fit for a Princess?

ACTIVITY SHEET M3

Using old photographs to find out about the past
This is a photograph of a man who was a nailmaker.



ACTIVITY SHEET M3

What can you find out about this man and what he does by looking at the photograph?

Describe his clothes.

What is he wearing?

Describe what he is holding in his right hand.

What do you think it is?

What has he got folded over his right knee?

Find what looks like the top of a table or work bench to the right of the picture.

What do you think that pile of little objects is?

Describe the building behind him.

Has it got windows and a door?

Does it look like a grand sort of place or a workshop?

**Nailmaking was Belper's greatest industry before the arrival of the cotton mills.
In the 1850s over 400 nailmakers like this man lived and worked in the town.**



KEY QUESTION FOUR

What sources can we use that will tell us about the past?



Purpose

- To find out about the past from different written sources
- To find out that different sources provide different information about an area.

Resources that are included in the pack

School Records

- Strutt School Admission Records from April 13, 1818

Wages Stopped Books

- List of forfeits for bad behaviour in the workplace
- Rents for Strutt Housing Stock in Belper

Court Papers

- Extract in the Court Papers printed the day after the visit of Princess Victoria to Belper for 1832

Books

- Extract from book published in time for the coronation of Queen Victoria, 'Victoria: An Anecdotal Memoir of Her Majesty' printed in 1837/8

Maps

- Burdett's map showing Belper 1762
- OS first edition map of Belper 1880

Plans and Section Drawings

- Plan of the street called Long Row
- Section through a house in Long Row
- Plans of the rooms on each floor of Long Row

KEY QUESTION FOUR

Using written sources to find out about the past

Learning objectives

Children should learn:

- To find out about the local area in the past from different written sources
- That different written sources provide different information about the local area.

Using two of accounts of Princess Victoria's (later to be Queen Victoria) visit to Belper on Tuesday 23rd November in 1832, when she was 13 years old.

- Extract from the Court Papers
- Extract from the book, 'Victoria: An Anecdotal Memoir of Her Majesty'.

Teachers' background information about linking pictures and maps to the written sources

The drawing of the Duchess of Kent and Princess Victoria with Mr Strutt could be used with this activity, as well as the drawing of Belper from Bridge Hill House (both are provided in the pack), George Strutt's home and where the Royal party went for lunch, and a map to show where the Mills and Bridge Hill House stood. The children might also like to see a map to showing Matlock and Chatsworth House. The Duke of Devonshire was the owner of Chatsworth House which also known as the Castle of the Peak. Baroness Stockmar was the Princess Victoria's personal companion.

Activity

Give the children the copies of the two written sources. The language will be difficult for the children to read and understand. Reading the articles with the children and discussing the content may help them to use them, otherwise they could be adapted for the children to use. The children could compare the two different accounts. The extract from the Court Journal was written two or three days after the visit. The extract from the book was written five years later. Ask the children to think about how the two articles might be different because they were written at different times. They could also think about the audience of the extracts and what might have been written to interest the particular readers. Both say that the Princess was interested in the machines and process involved in spinning thread. Ask the children if they think she was really interested in the cotton mill and how it worked. One says that she was interested in the children who worked in the Mills. Ask the children to think about why the Princess might have been interested in the children. Ask them to think about the age of the Princess at the time. She was 13 years old.

More background information for teachers to discuss with the children

Having read and discussed the articles so that the children understand something about Princess Victoria's visit to Belper, it would be worth the children thinking about what this tells us about the importance of the cotton mills or manufactories. Why would the Duke of Devonshire choose to take Princess Victoria, the future Queen, and the Royal party to visit a cotton mill? What do the children know about the industrial revolution that was happening in Britain at this time? Men like Robert Arkwright, son of Sir Richard Arkwright, and George and Joseph Strutt were what might be called 'new men' with 'new money'. They did not come from families who had been in the nobility for generations. Why would the nobility visit their mills and have lunch in their homes? What does this tell us about the wealth that was being created for Britain from cotton mills like the Strutt's Mills in Belper?

ACTIVITY SHEET A4

Using a written source to find out about the past

In 1832 Princess Victoria visited Belper.

This is an extract from a book published in 1837 at the time of the coronation of Queen Victoria.

The book was called 'Victoria: An Anecdotal Memoir of Her Majesty'.

The extract reads:

'On Friday morning (October 19 1832) the Duchess and her daughter took leave of the Marquis of Westminster and his family to proceed to Chatsworth, where they remained till the following Wednesday. The Duchess of Kent made use of the opportunity thus afforded, to show the Princess Victoria the extensive cotton manufactories of Messrs. Strutt, at Belper. Her Royal Highness was much interested in the explanations she received of the variety of machinery in use at this establishment; and with her usual fondness for children, was especially delighted with the gladsome countenances and neat appearance of those employed in the manufactory, noticing them repeatedly with expression of the most cordial kindness.'

Write an account of the visit in your own words. Or, imagine that you are the Princess Victoria and write about the visit in your diary. You can use the drawing made of the visit to illustrate your article or draw your own picture of what you think the visit might have been like.

Your account

On Friday morning...

Using a written source to find out about the past

An extract from the Court Journal which tells about Princess Victoria's visit to Belper.

Visit of the Duchess of Kent and her daughter, Princess later Queen – Victoria, to Belper.

Extract from the Court Journal

Saturday, November 17, 1832

Tuesday 23rd

“Their Royal Highnesses, accompanied by the Duke of Devonshire and a large party, comprising among others, the following persons, inspected the cotton manufactories of Messrs. Strutt, at Belper; Lady Catherine Jenkinson, Baroness Stockmar, and Sir John Conroy, of the Royal Suite; the Earl and Countess of Newburgh, Lord and Lady Wharnccliffe, the Hon Mrs Talbot, Lord and Lady Cavendish, Mr. and Lady Caroline Lascelles, Miss Cavendish, Count Caroli, Lord Waterpark, Lord Morpeth the Lord Chief Baron of Scotland, Sir Augustus Clifford, the Hon Mr. Cowper, and Mr. H. Greville. The Royal party very minutely inspected the whole internal arrangements of the manufactory, and the young Princess seemed much interested in the different processes which were exhibited.

The whole party afterwards lunched at Mr. George Strutt's, at Bridge Hill, and proceeded home through the delightful village of Matlock, where their Royal Highnesses visited the museum and baths. Among the company who dined with the Royal guests this evening at Chatsworth, in addition to those already enumerated, were Sir Thomas Denman, Sir John Leach, Lord and Lady Vernon, Mr. N. Strutt, and Mr. and Mrs. Robert Arkwright.

The princely splendor of the ‘Castle of the Peak’ never shone higher than on the occasion of the Royal visit; and during the whole time, three days, the Duchess and her Royal daughter remained, nothing could exceed the urbanity and attention of the Noble Host. It was in every way a visit worthy of a Princess to pay, and one of the first Peers of the realm to be honoured with. The visit itself will long be remembered at Chatsworth among the dicte notandi. The daily consumption at Chatsworth was from two to three oxen, forty sheep, and from ten to twenty calves, besides deer, fowls etc., etc.”

Make a note of all the different places the Princess visited.

Make a note to say where she was staying and who with.

Make a note to say where she had lunch on the day.

KEY QUESTION FOUR

Maps – Using old maps to find out about the past

Learning objectives

Children should learn:

- that the area has changed at different times in the past
- to sequence maps in chronological order
- to use maps to help describe some of the characteristic features of the past.

Teacher's background notes

Maps are a good source of information about the past. Try to collect a number of maps of the same area from different times. It would be a good idea to enlarge or reduce the scale of the maps so that they are all the same. It is easier for the children to compare this way. Maps you might be able to find examples of are Tithe Maps from around the 1840s, Ordnance Survey Maps 1st edition sometime around 1890 and 2nd edition around 1920. In Derbyshire there are also copies of a map called Burdett's Map drawn in the year 1762 with later additions. Have a copy of an Ordnance Survey map of the area made at the present time. Your Local Authority planning department may be able to help you with getting hold of one.

Two maps showing the town of Belper are included in this resource

1. Burdett's map of 1762 shows the town of Belper before Jedediah Strutt began building the Mills and industrial settlement a little to the North of the town centre around the bridge that crosses the River Derwent.
2. The Ordnance Survey map of 1880 shows the town about 100 years later. Jedediah Strutt and, after him, his sons, William, George Benson and Joseph, developed the Mills and the houses, schools, farms and Chapel over a period of about 40 years between 1777 and 1815. All these are shown on the OS map of 1880.

Using the two maps of Belper with the children in order to compare the town of Belper before and after the building of the Mills and industrial settlement

Divide the children into pairs and give each pair copies of the two maps of the same area – one from 1762 and one from 1880. Ask the children to look for and record changes by comparing details shown on the maps, such as roads, railways, housing, open spaces, churches, schools and other buildings. What buildings have appeared or disappeared? How has the type of building changed over the period?

Help the children to build up a 'picture' of the past: choose the same two points for children to 'walk' between on each map, and ask them to describe what they might have seen, heard or even smelt at different times in the past, before the Mills were built and then afterwards.

Use the drawings of the Strutt's Mills at Belper and the drawing of Bridge Hill House together with the OS Map of 1880.

Give the children a copy of one of the drawings. Ask the children to try to work out where the artist was standing. Look at the map and the drawings together and see if the map helps the children to work out what the buildings they can see in the drawings are. For example, in the drawing from the garden of Bridge Hill House they should be able to work out that the church is the St Peter's Church completed in 1824, the terrace of houses is Long Row, the mills are the Strutt Cotton Spinning Mills, and the town on the hill behind is Belper.

Using old maps to find out about the past

Map drawn by Burdett, which was started in 1762, showing the town of Belper before Jedediah Strutt built his cotton mill.



ACTIVITY SHEET B4

Using old maps to find out about the past Map drawn by Burdett in 1762

Look closely at the map drawn by Burdett.
The map was started in 1762 and finished in 1767.

- Find the River Derwent
- Find the town of Belper
- Find the roads
- Find the bridge over the Derwent
- Find the buildings that show the town of Belper
- Find the Chapel or Church in Belper
- Find the Water Mill in Belper

Use the key to help you.

Key taken from Burdett's map

Describe Belper in 1762.

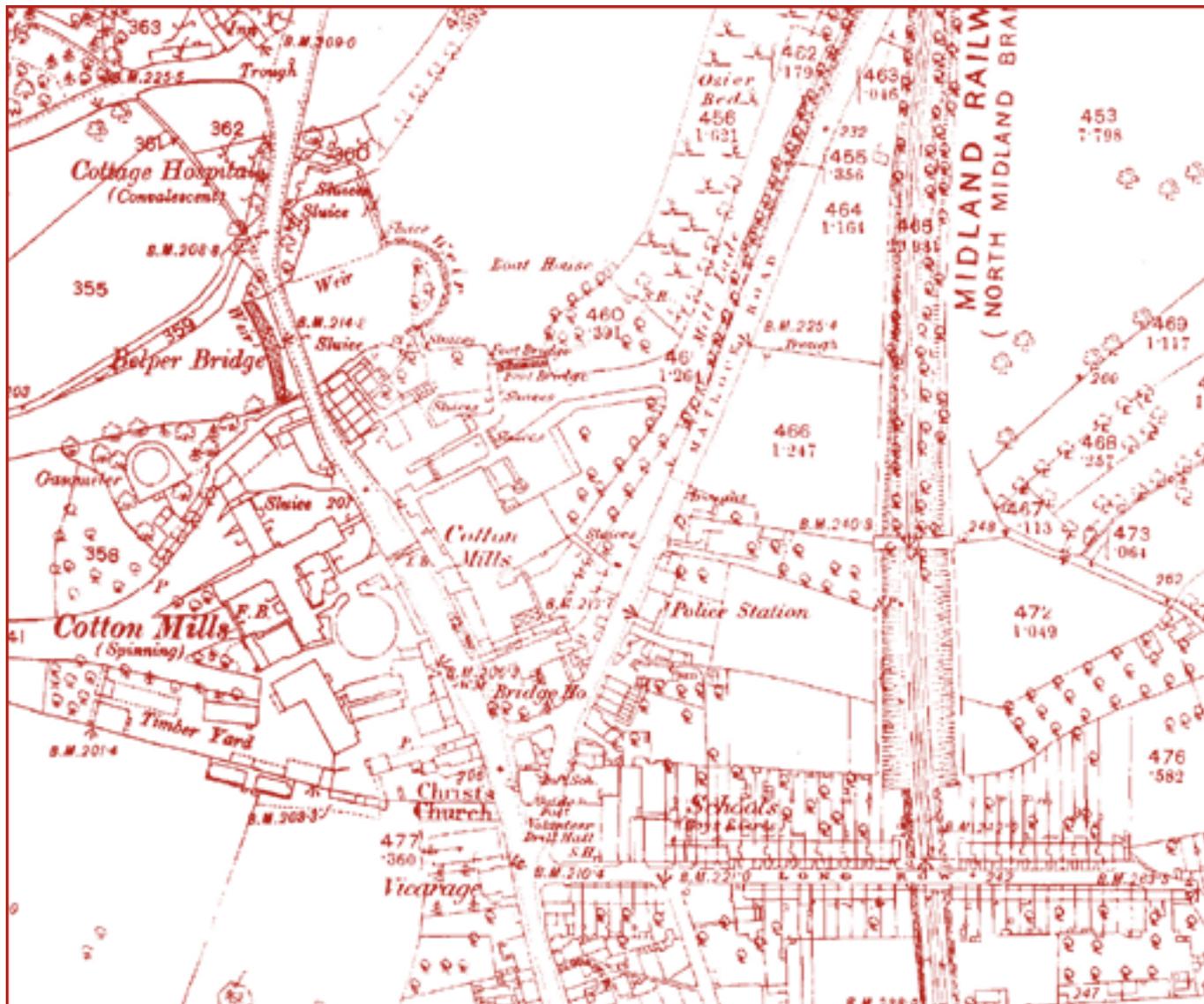
This map was drawn before Jedediah Strutt began building the Mills along the East bank of the River Derwent.

This map was drawn before Jedediah began building the houses along Short and Long Rows or the new Unitarian Chapel.

RESOURCE SHEET 3(4)

Using old maps to find out about the past

Ordnance Survey map drawn in 1880 showing Belper.



KEY QUESTION FOUR

Plans – Using plans and sectional drawings of the houses in Long Row

Learning objectives

Children should be taught:

- To find out about the past from different sources
- That different kinds of source materials provide different information about the local area.

Teacher's background notes

These plans and sectional drawings of the houses in Long Row are an unusual source for children to use but they will provide an insight into what it was like to live in some of the first industrial housing ever built.

Long Row was built between 1792 and 1797. Long Row is industrial housing of a high quality. The houses are all listed grade II buildings. There were originally 78 houses in the Long Row. It was built in the form of three terraces, two of which were continuous until broken by the north Midland Railway in 1840. The 35 three-storey houses are constructed predominantly in sandstone with a continuous sloping eaves line. They are designed with interlocking plans formed around the staircase.

The southern two-storey terrace is constructed primarily in brick and ascends the rising ground in stepped pairs.

Each house has its own garden with allotments behind. There are now 62 dwellings in all. There is a gap where eight houses were knocked down to allow for the cutting for the railway to run through Belper.

Plans showing four three-storey interlocking houses are included in the pack, as well as a sectional drawing through the three floors showing how the rooms were used, a plan of the original ground floor and the modernized ground floor plan of a later date.

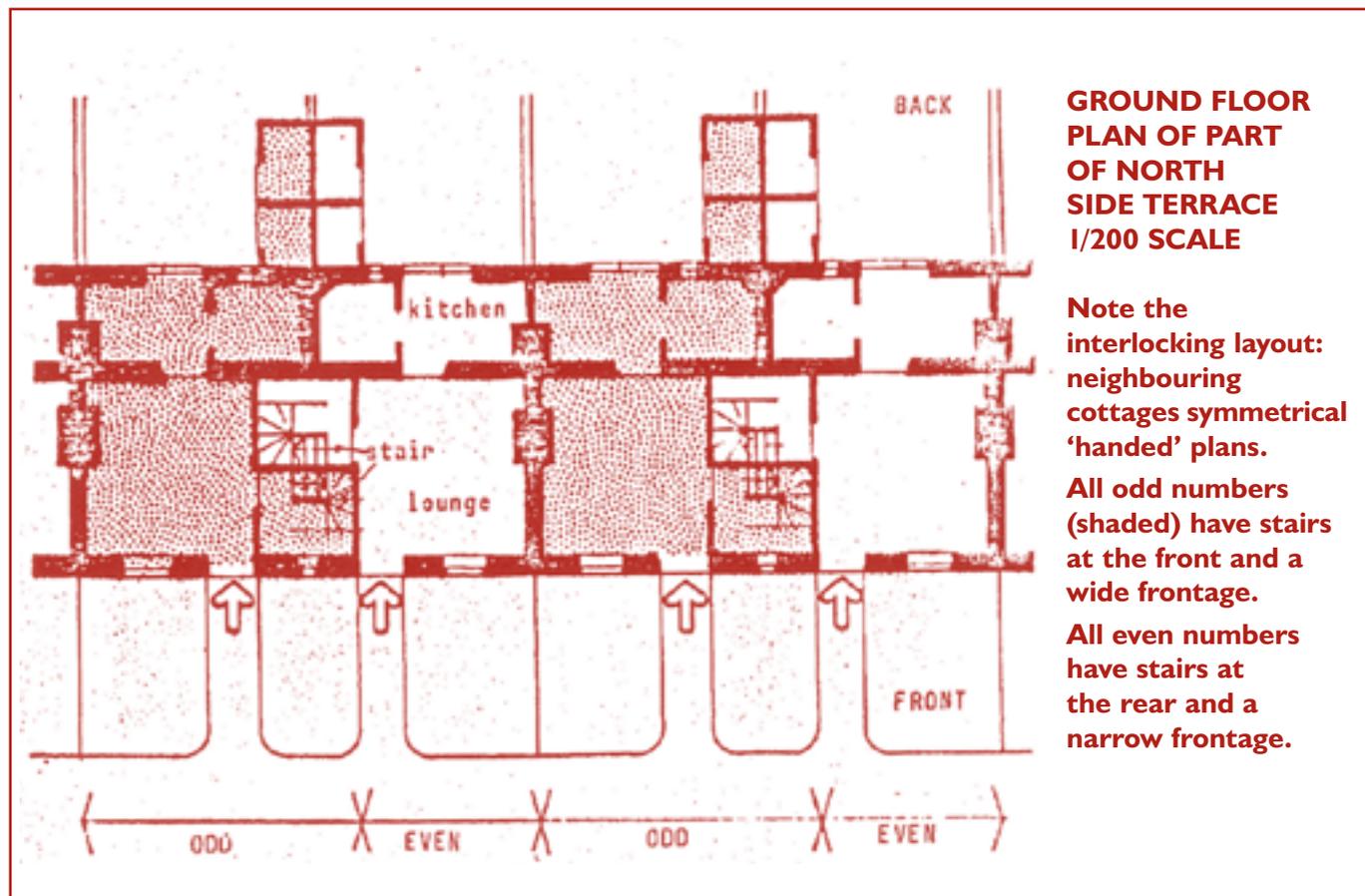
The plans will show the children how the three-storey houses interlocked with each other around the staircases. It would be useful to take a copy of the plan with you when you visit Long Row. The children could work out how the houses have symmetrical 'handed' plans. All odd numbers (shaded) have stairs at the front and a wide frontage. All the even numbers have stairs at the rear and a narrow frontage. Look for the clue – the staircase window of each odd numbered house.

Ask the children to investigate the use of each of the rooms in one house. Use the original plan (the one of 7 Long Row). Ask the children to make a list of the rooms in their own homes and to say what each is used for. Ask the children to compare the use of these rooms with the rooms in their own homes.

The children should know that houses were used differently to the way we use our homes today. For one thing, we have a lot of leisure time and our houses reflect this.

A number of resources are included in the pack which will help the children find out more of what it was like to live in Long Row in the past. These include old photographs, school admission records and extracts from the Wages Deducted (or rent) Books.

Using drawings of the plans of houses to find out about the past



Drawing showing the floor plan of the houses in Long Row and how they are linked together around the staircase

Can you see what a clever design was used for these house?

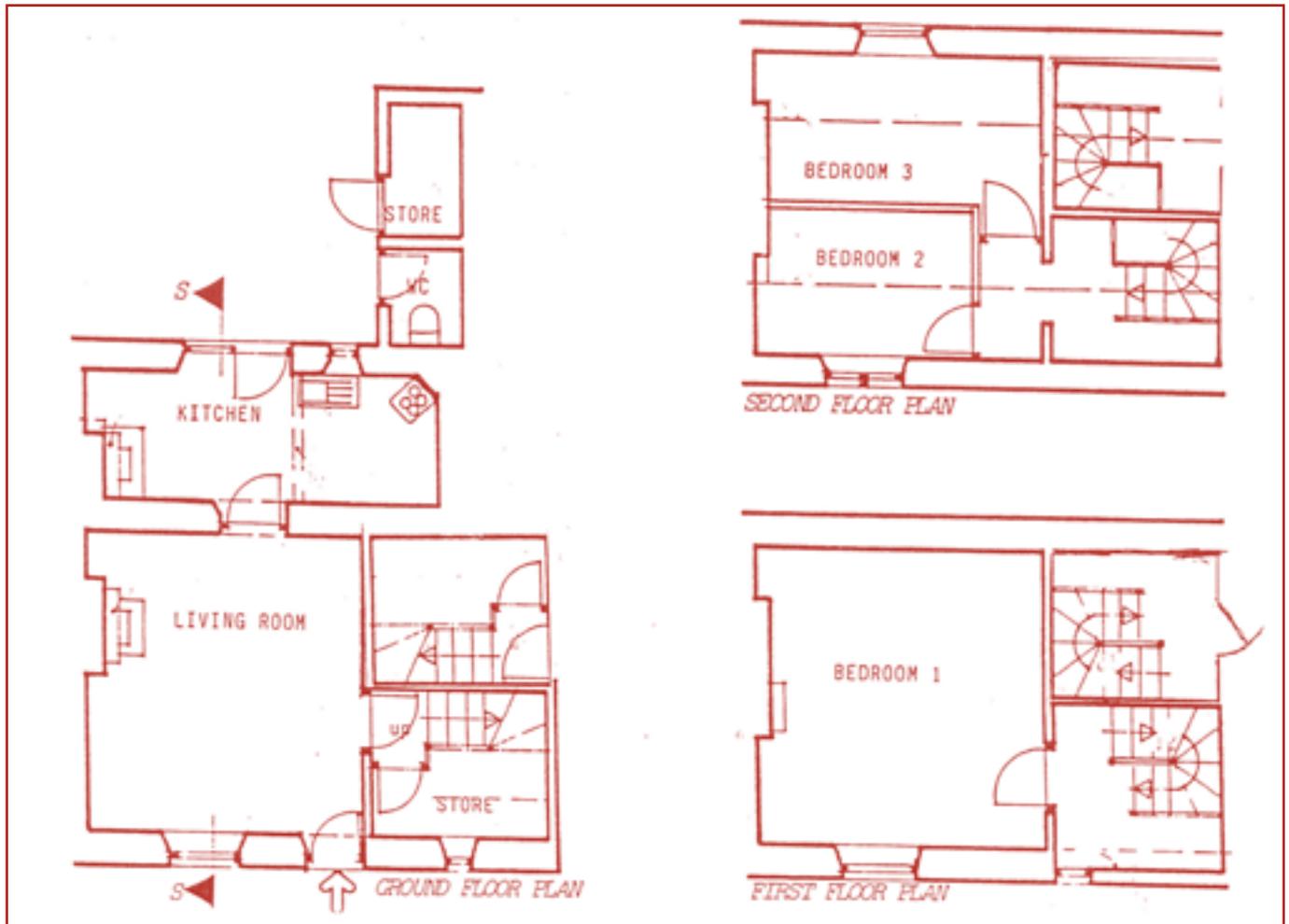
Each house fits together, rather like a jigsaw, interlocking around the staircase.

What are the good points about joining houses together like this?

Can you work out how the builders were able to save on building materials by joining the houses together like this?

ACTIVITY SHEET E4

Using plans of houses to find out about the past



These drawings are plans of the terraced housing in Long Row.

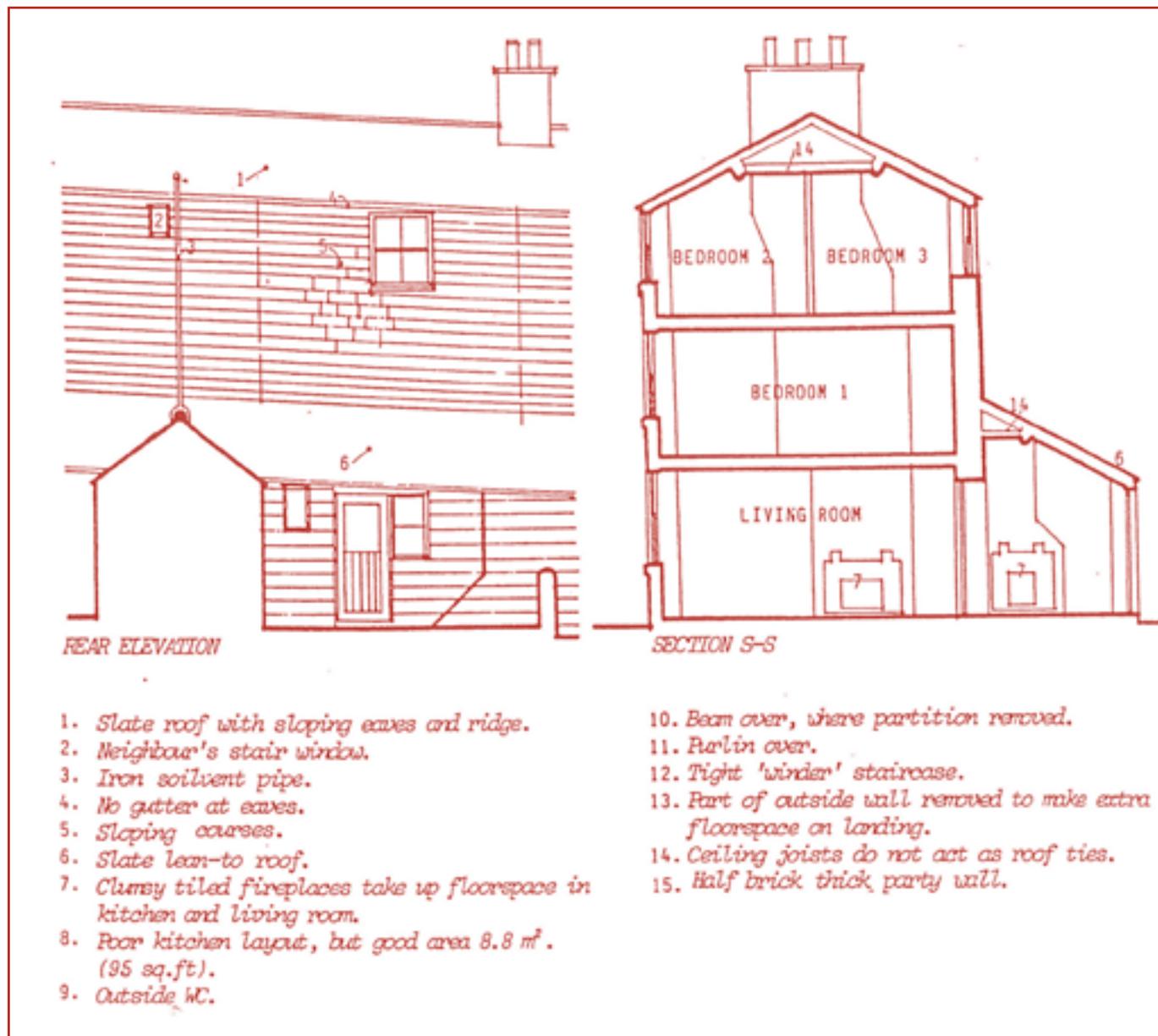
See if you can work out where the door to each house is.

See if you can work out where the windows are.

See if you can work out where the staircase for each house is.

See if you can work out what each room was used for.

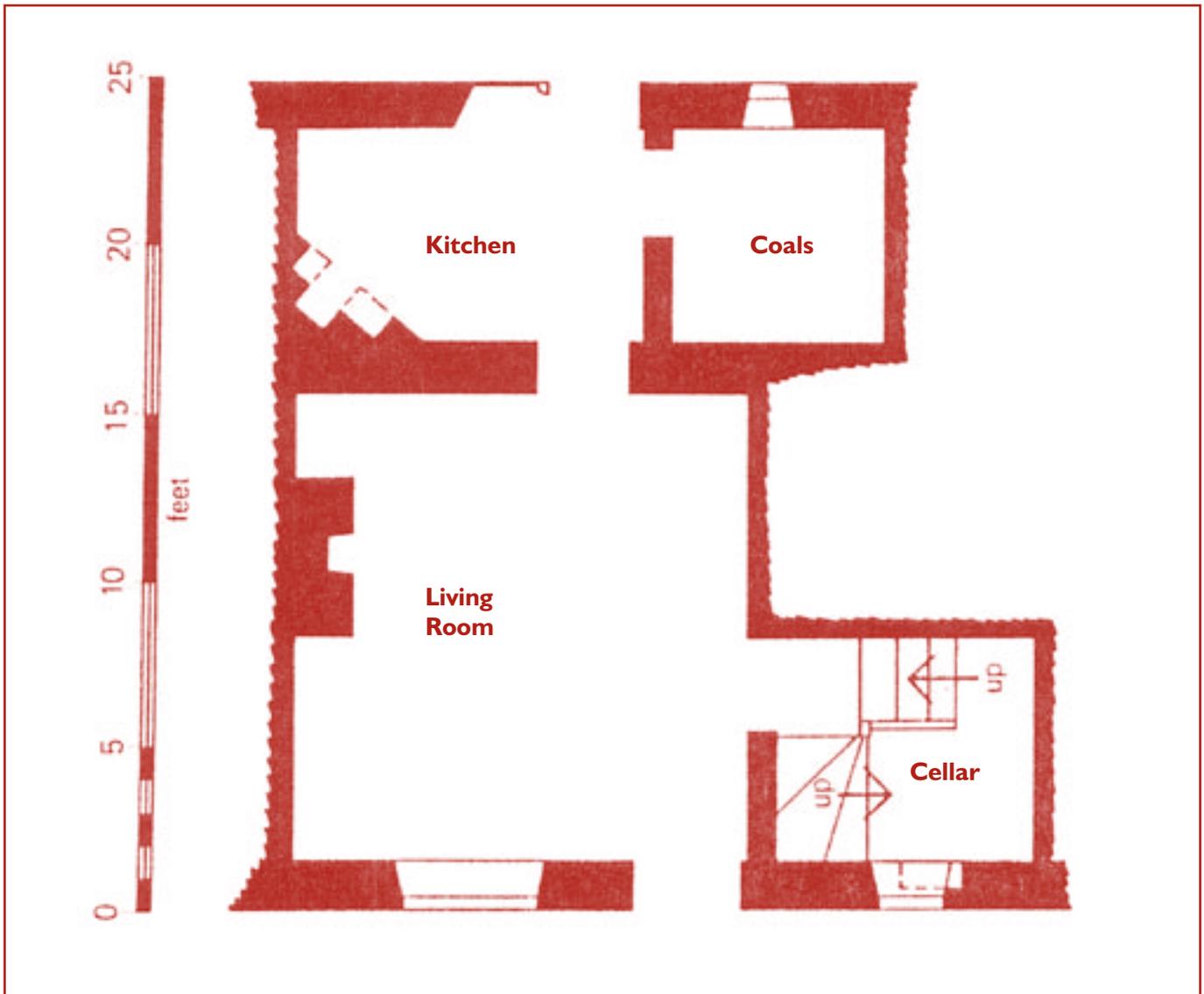
Using plans of houses to find out about the past



Section through Long Row showing the rooms on each of the three floors

RESOURCE SHEET 4(4)

Using old plans to find out about the past



This is a drawing showing the plan of number 7 Long Row before it was altered to give a bigger kitchen and provide an outside toilet and store.

Work out how the alteration was made by comparing the two plans.

KEY QUESTION FIVE

School Admission Records – Using Belper British Girls and Boys School Strutt School Admission Records to find out about the past.

Teachers' background information

These records begin on April 13th 1818. The original documents may be located at Manchester and Local Studies, Manchester Central Library, St Peter's Square, Manchester, M2 5PD. Reference Strutt School Papers.

The complete records can be seen at: www.genuki.org.uk/big/eng/DBY/Belper/StruttSchoolA.html

The original records have been transcribed by Caroline Densham with the permission of Manchester Archives and Local Studies.

Caroline Densham says that the original admission records are entered alphabetically in four books – so regardless of date when allocated, pages are filled in the one book – the entries continue in the next, or out of sequence in the same book. Two columns headed 'Reading' and 'Arithmetic' have been omitted in her transcription as they contain only intermittent entries of test scores. A column headed 'Religion', with sparse entries of Baptist, Calvinist, Chapel, Church, Methodist, Presbyterian and Ranter, is also omitted.

Caroline Densham says that "Wanted" was put against a child's name when they did not attend school and had sent no reason for being absent. However, to start work at the Mill a child was supposed to be able to read and write, so they may have come back to school either to be tested or to learn the minimum amount to become employable. This explains why sometimes months or years might go by before re-admittance, and also why some of them stayed only a short time before going to work.

Using the extracts from the transcriptions with children

Learning objectives

- To find out about the local area in the past from different written sources
- To learn that different kinds of written sources provide different information about the local area.

School records

These school records are taken from the Strutt School Admission Records in Belper.

Give the children copies of the extracts to find out what the names were of some of the children who worked at the Mill, how old they were when they started at the Mill, what their fathers' did for a living and where they lived.

Ask the children to compare these with their own lives; how long will they expect to be in school? Ask them at what age they think they will be when they start work.

Most of the jobs that the children's fathers were doing in 1818 don't exist today. Talk to the children about what these men did and why those jobs no longer exist.

ACTIVITY SHEET G4

Using Belper British Girls School Strutt School Admission Records – April 13th 1818

Names	Age	Residence	Father's trade	Admission	Left on	Observations, reasons for leaving
Davies Susan	8	Long Row	Employed in coal pit	July 6 1818	Jan 1822	Went to the Mill
Davies Eliza	5	Long Row	Employed in coal pit	Jul 6 1818	Sept 1818	Wanted at home
Davies Harriet	5	Short Rows	Collier	May 23 1818	Mar 1831	Gone to the Mill
Furnace Lydia	9	Long Row	Labourer	March 1823	April 1825	To the Mill
Frost Frances	9	Field Row	Stockinger	March 5 1826	March 16 1827	Gone to the Mill
Ford Alice	3	Clusters	Overlooker	May 1 1827	June 3 1831	Gone to the Mill
Flint Emma	8	Common Side	Nailer	Oct 4 1829	March 4 1831	Gone to the Mill
Ford Eliza	11	Mount Pleasant	Weaver	April 1821	June 1821	Went to work
Davies Sarah	7	Cluster Buildings	Collier	Nov 29 1825	May 20 1826	Wanted

These are a few of the records taken from the School Admission records for Belper British Girls School Strutt School for surnames beginning with D and F.

Work out how old Lydia Furnace was when she started work in the Mill.

Work out how old Alice Ford was when she went to work at the Mill.

Choose one of the other girls and work out how old she was when she went to work at the Mill.

ACTIVITY SHEET H4

Using Strutt School Admissions of Belper British School for Boys 1818-1839

Names	Age	Residence	Father's trade	Admission	Left on	Observations, reasons for leaving
Bond George	7½	Short Rows	Bricklayer	May 18 1818	April 20 1821	Gone to work at Mill
Bond John	5	Short Rows	Bricklayer	May 18 1818	Nov 12 1822	Gone to work at Mill
Bridges Benjamin	4	Long Row	Tailor	January 2 1832	Sept 15 1838	Wanted
Bridges William	3	Long Row	Tailor	March 1 1830	August 10 1834	Gone to Mill
Bridges John	3	Long Row	Tailor	March 30 1841	Oct 29 1841	Gone to work with his father
Booth Joshua	7	Short Rows	Nailer	July 20 1835	Dec 20 1839	Gone to work
Burgess William	3	Long Row	Soldier	March 28 1837	March 2 1839	Left town
Booth George	4	Cluster Buildings	Wood turner	May 22 1836	March 1 1844	Gone to the Mill
Barlow John Thomas	1	Long Row	School Master	June 13 1831	March 24 1840	Gone to the Mill

These are a few of the records taken from the School Admission Records for Belper British School for Boys with surnames beginning with B.

What did John Thomas Barlow's dad do for a living?

What did Joshua Booth's dad do for a living?

Where did the Bridges family live?

How old was John Bond when he went to work in the Mill?

KEY QUESTION FOUR

Wages Stopped Books - Using old records from the Wages Stopped Books from Strutt's mills.

Learning objectives

Children should learn:

- To find out about the local area in the past from different written sources
- That different kinds of written sources provide different information about the local area.

Teachers' background information

Wages Stopped Books provide information about the fines that were deducted from the wages of Mill workers and details of offences they committed. The records make interesting reading. The children could be asked what rules of behaviour are required at their school and what punishment they receive for various offences. The children could be asked which of the offences committed by the mill workers were really bad and those that were just naughty. They could also be asked which of the bad deeds they thought might have been committed by men and women and which were committed by children.

ACTIVITY SHEET J4

Using old documents to find out about the past

Factory Rules and Forfeits – Keeping Control

When people first came together to work in the cotton mills, the employers felt they must control their workforce by having very strict rules of behaviour. The overseer kept discipline and gave out fines for any bad behaviour.

These lists are some of the activities that got people into trouble. Their misdemeanours were recorded in the wages stopped books.

Absence:

- Running away
- Being off drinking
- Off without leave at wakes
- Being off at Heage Feast with a pretence of being ill
- Off at Derby Races without leave.

Theft of Mill property:

- Stealing candles and oil
- Stealing yarn
- Making good yarn into waste and pocketing it
- Stealing nails.

Destruction or damage of Mill property:

- Breaking a Drawing Frame
- Setting fire to a lamp cupboard
- Tearing roller clothes willfully
- Stuffing a stove tunnel up
- Putting good cotton in the dust.

Failure to do work as required:

- Leaving her machine dirty
- Leaving his dust room dirty
- Weighing sorts wrong and being saucy when told of it
- Tying bad knots
- Neglecting their work.

Failing to comply with Mill discipline:

- Idleness and looking thro' window
- Calling thro' window to some soldiers
- Riding on each others back
- Telling lies to Mr Jedediah
- Sending for ale into the room.

Misconduct outside working hours:

- For putting Josh Haynes' dog into a bucket of hot water
- Rubbing their faces with blood and going about town to frighten people
- Attempting to defraud Messrs Strutts by changing bad money for good.

Read the list of offences.

Remember that many of the people who worked at the Mill were women and children.

Can you decide which offences might have been committed by boys and girls?

Make a list.

Choose one of the offences and make up a story about what might have been happening.

Can you decide which offences might have been committed by the women?

Make a list.

Choose one of the offences and make up a story about why this might have happened.

KEY QUESTION FOUR

Rent Books – using the information about rents for the Strutt Estate Houses in Belper, taken from the Wages Stopped Books to find out about the past.

Learning objectives

Children should learn:

- To find out about the local area in the past from different sources
- That different kinds of written sources provide different information about the local area.

Using the records of the Rents for the Strutt Estate Houses taken from the Wages Stopped Books kept at Manchester Library.

These records were extracted by Ellen Wheeldon and made available by her to be used in this resource.

The rents for the various houses built and owned by the Strutt family were paid through deducting the amount owed out of the wages of members of the family that worked at the Mill. It is interesting to look at the cost of renting the houses in Long Row, Short Rows and the Cluster Houses. These are the same houses that the children visited and studied when on fieldwork in Belper. It is also interesting to find out the names of some of the people who lived in the houses.

Using the Wages Stopped Books with the School Admission Records.

If the children look at the two sources and compare information, they can find out a lot more about the families who lived in particular houses. For example, look at the Bridges family that lived in number 10 Long Row. The dad was called William, he was a tailor, he had three sons that went to school, two of the boys went to work in the Mill, one went to work with his father to learn to be a tailor.

Or look at the Wheeldon family. The Wheeldons were joiners to the Strutt estate and their premises were within The Cluster Court development and called Wheeldon's Wood Yard.

(Information supplied by Ellen Wheeldon, 12 Crown Terrace, Belper. Tel. 01773 825468)

RESOURCE SHEET 5(4)

Using Rents for the Strutt Estate Houses in Belper taken from the Wages Stopped Books

Long Row houses North Side 1826				Short Row houses 1826			
Number	Occupier	Rent	Date	Number	Occupier	Rent	Date
6	John Harvey	2/9d	1826	42	Daniel Bird	2/2d	1826
7	Thomas Brown	2/4d	1826	43	Samuel Hague	2/7d	1826
8	Richard Parker	2/8d	1826	44	Joseph Stoppard	2/2d	1826
9	Robert Cholerton	2/6d	1826	45	Samuel Snow	2/9d	1826
10	William Bridges	2/10d	1826	46	William Porter	2/3d	1826
				47	Thirza Bond	2.3d	1826
Long Row houses South Side 1826				Joseph Street Cluster houses 1826			
Number	Occupier	Rent	Date	Number	Occupier	Rent	
71	Shop	Not known	1826	1	Not known	3/-	
72	Not known	2/9d	1826	2	-	3/-	
73	-	2/7d	1826	3	-	3/4d	
74	-	2/4d	1826	4	-	3/9d	
75	-	2/3d	1826				
76	-	2/4d	1826				
77	-	2/5d	1826				
78	Shop	Not known	1826				

Long Row houses South Side 1900				Joseph Street Cluster houses 1900		
Number	Occupier	Rent	Date	Number	Occupier	Rent
71	Shop – occupied by George Gamble, Fitter and Miss Mary Gamble, Shopkeeper	6/-	1900	1	George Wheeldon	
72	W. W. Oldknow	3/10d	1900	2	William Wheeldon	
73	Mrs Betsy Holmes	3/8d	1900	3	Mrs Fanny Winson	
74	Mrs Florence Stone	3/7d	1900	4	John Wheeldon	
75	William Ratcliffe	3/10d	1900			
76	Miss Frances E. Wildsmith	3/10d	1900			
77	Abraham Hunt	3/10d	1900			
78	Shop – occupied by James Alfred Beresford, Draper, from Regent House, Bridge Street	15/4d	1900			



KEY QUESTION FIVE

What was it like to live and work in the industrial settlement of Belper in the past?



Purpose

- To synthesise what they have found out about the local area
- To put their findings into chronological context
- To contribute and cooperate as part of a group
- To organise information and communicate it in a variety of ways appropriate to the audience.

The results of the different activities can be organised and communicated to other audiences in various ways and the children should consider the intended audience.

Activities

Drama – I

Roleplay and freeze framing as children recreate the story around the picture and accounts of Princess Victoria meeting Joseph Strutt at Strutt's Mills in Belper.

What was it like the day Princess Victoria came to look at the Strutt's Mills in Belper?

Freeze frame activity

Use the drawing of Princess Victoria's visit to Messrs. Strutt's Mills at Belper as the starting point.

Characters in the drawing include:

- Joseph Strutt
- Princess Victoria
- Duchess of Kent (her mother) we can assume
- Baroness Stockmar (her companion) we can assume
- Joseph Strutt's wife? The woman in the background do we think?

Artefacts:

- Bobbin and flyer

Other possible characters as listed in the two accounts:

- The Royal Party members
- Duke of Devonshire
- The children who work in the Mill – Princess Victoria is supposed to have expressed an interest in them
- The artist who drew the picture.

Action

1. Before the freeze framing – everybody getting ready so that the artist can compose his picture
2. Artist gives instructions to get everyone in place
3. Freeze frame – with key characters taking up expressions, direction of glance as in the drawing – hold it while the artist draws the picture, say one minute. What might Joseph Strutt say to Princess Victoria? What might Princess Victoria say to Joseph Strutt?
4. What happens next? Is the Princess amused?

KEY QUESTION FIVE

Drama – 2

Roleplay created in response to information about the offences or bad behaviour of children at the Mill held in the Wages Stopped Books for Strutt's Mill.

The children, perhaps in small groups, could choose one of the offences to work a drama around. For example, from the list of offences committed outside working hours listed under 'Misconduct outside working hours' in the resource material included in this resource, the children might choose for 'Rubbing their faces with blood and going about the town to frighten people.' The children could be asked to imagine what events led up to the prank, was it Halloween Night, where did they get the blood, who did they frighten, what was their reaction, how did the Overseer at the Mill get to hear about it, what did he say to them, what did their parents say? They could choose the names of the children involved from the School Admissions Records and relate the children to where they lived by using information from the rents out of the Wages Stopped Books. The children could then design a short drama to tell the tale. The drama would need to have a beginning which could be the children plotting their prank and getting ready, a middle where the children dramatise the action of going around the town frightening people, and an end when they reap the consequences of their prank.

The class could produce several small dramas by different groups of children based on different offences to present to the rest of the school.

Wall or table display

The children could make a large wall display using the large map of Belper Industrial Settlement surround, with labelled photographs and drawings collected on their fieldwork visit to Belper.

Guide book

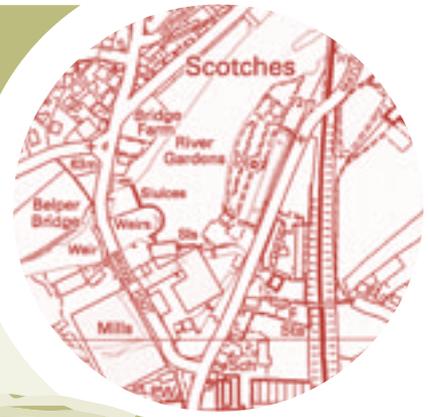
The children could make a guide book of the Industrial Settlement of Belper pointing out interesting historic buildings and features to look out for. They should decide who the guide would be for, for example, families, children or tourists. They will need to decide on the content and format and length of text. They may be able to produce the guide using ICT. The volunteers at Strutt's North Mill could be invited to comment on the guide.

Timeline

The children could be asked to produce a timeline for the development of the industrial settlement of Belper from the mid 1700s to 1900. They could use historic maps, drawings and photographs to illustrate the various events along the timeline.

KEY QUESTION SIX

Why is the industrial settlement of Belper in a conservation area and why are many of the buildings and features listed?



Resources

- Map showing conservation area of Belper
- Tithe Map for Belper 1842
- Ordnance Survey Map of 1880s
- List of listed buildings for Belper

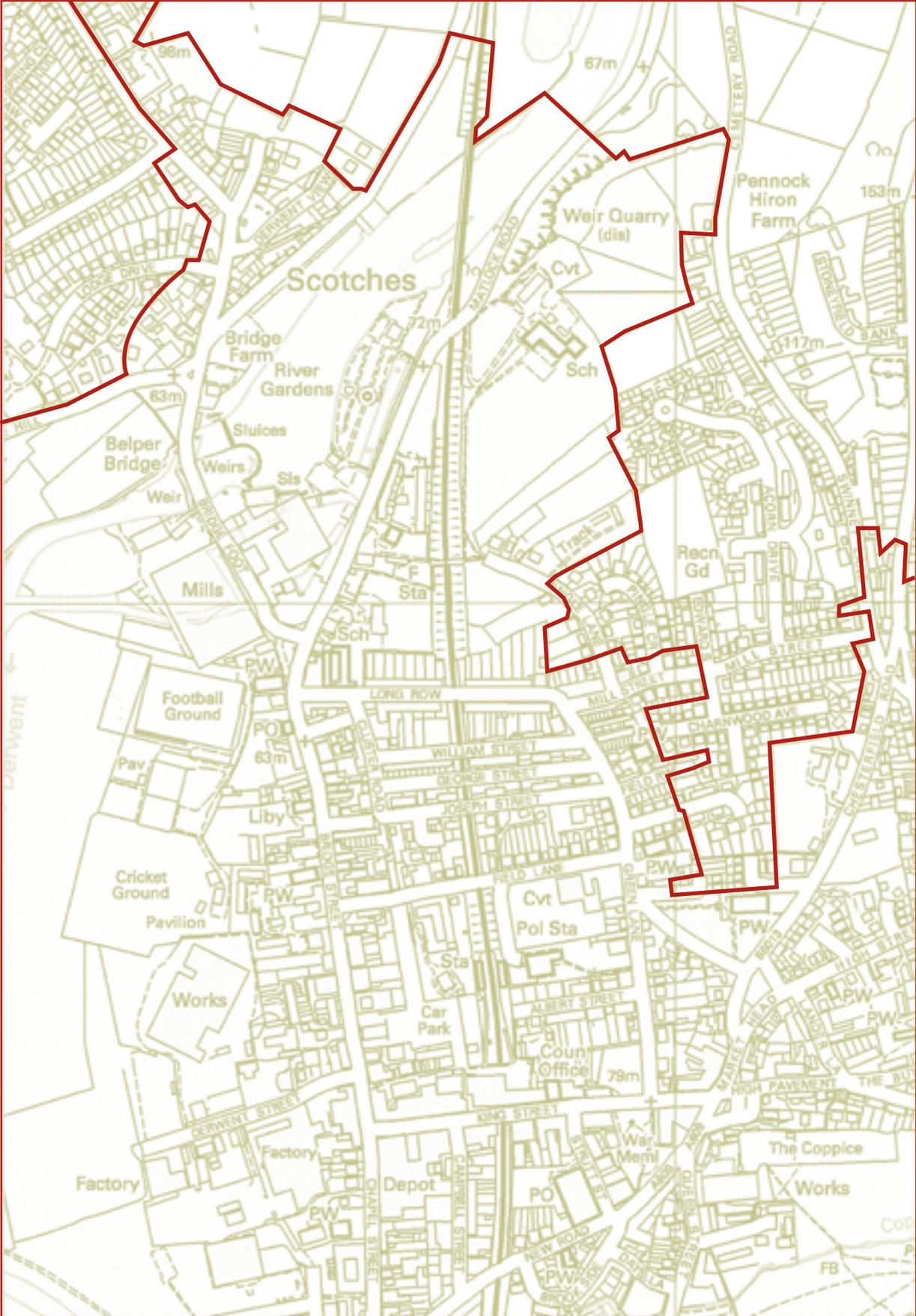
Activity

Make copies of the map of the Conservation Area of Belper for each group of children. Tell the children about Conservation Areas. Tell them that those areas inside the red line and shaded pale yellow (very pale) are within the Conservation Area. Ask the children to orientate themselves by finding the River Gardens, the Mills, Bridge Street and all the streets that lead off Bridge Street to the East including Long Row William Street, George Street, Joseph Street and Field Row. See if they can work out where the Unitarian Chapel is on Field Row. Make copies of the Ordnance Survey map of 1840 for each group. Ask them to compare the two maps. Ask the question, which part of the OS map is covered on the Conservation Area map? In other words, which streets that are shown on the OS are shown to be in the Conservation Area.

Ask the children about what they know about the streets they have been asked to find, who built them, when and why. Ask them if they can think of reasons why these streets should be conserved or protected from change and development. Reasons could include; their historic value, that they were built by a famous family, that they were unusual designs for houses in their time, that they tell us about the lives of people in the past.

ACTIVITY SHEET I(6)

Conservation Area map showing part of Belper town.



ACTIVITY SHEET 1(6)

The red line marks the edge of the Conservation Area.

The shaded area of the map shows which buildings are inside the Conservation Area.

Look carefully at the map to find:

- The Mills
- The Bridge over the River Derwent
- The Weirs
- The River Gardens
- The Railway
- Long Row
- The school at the bottom of Long Row
- Field Row
- The Unitarian Chapel (marked as PW)

Are all these features inside the Conservation Area?

Why do you think this is so?

ACTIVITY SHEET



KEY QUESTION SEVEN

Why is this area of Belper part of a World Heritage Site?



Activity

Make sure the children have a globe to hand. Talk to the children about the world and all the different countries there are in the world and how many different people there are. Have a brainstorming session with them to see how many different countries they can think of and how many famous places or buildings they can think of. Ask the children to make a collage of images from a collection of travel brochures, newspapers and magazines showing images of places and peoples around the world. Sort them into old buildings such as the Pyramids or new such as the Sydney Opera House. You may have some teaching packs in school about contrasting localities in the developing world that could be used as well.

Then do a similar activity about the UK to show famous places, buildings and customs that represent the UK and its landscapes, buildings and cultures.

To sum up, say that the world is a very varied place with many different landscapes, towns, cities and cultures past and present. Say that people want to protect these landscapes such as the rain forest, the Great Barrier Reef, the Pyramids, the Great Wall of China, Hadrian's Wall, so that people can enjoy them, visit them, learn about the past by studying them. Explain that some of these buildings tell us about important times in the past. Say that the Industrial Revolution was an important time in the past, not just for the UK but for the world, because it changed the way men, women and children worked and lived their lives, it changed how things were made, it changed our landscapes filling them with Mills, and weirs and workers' housing. Say that the Industrial Revolution in the cotton industry began in the UK, that it began along sites on the Derwent River in Derbyshire where men invested money in machines, mill buildings, homes for workers, schools and chapels to create new working communities producing cotton goods that were sold all over the world, and these ideas spread throughout the developed world. Say that, because of this, the Derwent Valley and its Mills have been made into a World Heritage Site.

Have a collection of all the brochures, leaflets, newsletters, maps and posters about the Derwent Valley Mills World Heritage Site to show the children. Have them make a collage/display about the DVMWHS. These are available from Belper North Mill or from the World Heritage Co-ordinator Adrian Farmer, Derbyshire County Council.

Acknowledgements

The text for this publication has been compiled from various publications including in particular *The Derwent Valley Mills and their Communities*. *The Derwent Valley Mills and their Communities* was published as a result of the research carried out for the document used in the nomination of the Derwent Valley Mills for inscription on the World Heritage List.

The Teacher's Pack has been commissioned by the Derwent Valley Mills Partnership who have given their advice and support for the project.

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The pack has been written by Jane Featherstone, Environmental Studies Service Manager, Derbyshire County Council.

This publication may be photocopied for use in the classroom.

Jane Featherstone BA (Hons)

Art & Industrial Design PGCE

I am a qualified primary school teacher although my degree is in the field of art and design. I have worked as a primary school teacher and as an advisory teacher for environmental education and now manage the Urban Studies Centre in Chesterfield.

My work with teachers and their classes is concerned with the built environment. Through day programmes of classroom and fieldwork activities, I hope that children and young people will develop knowledge, understanding and interest in the built environment, past, present and future. I hope that they will come to understand the factors and processes that lead to change within the built environment and the impact that this has had on our lives, and that this will lead to a concern for the environment and a willingness to participate in the decision making processes that will shape the environment in the future.

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