


Year Group	4	Area of Study	Steel City and the Industrial Revolution
Key NC Reference and Objectives	<p><i>To develop more independence in carrying out investigations including posing their own questions and organising their work.</i></p> <p><i>To address and sometimes devise historically valid questions</i></p> <p><i>To understand how knowledge of the past is constructed from a range of sources</i></p> <p>4.2 To be able to use evidence to find out about the past in the local area.</p>		
Possible Enquiry Questions	<ul style="list-style-type: none"> - The Industrial revolution was a good thing that changed the world: agree or disagree? - Steel City: a true legacy Discuss! - How do we know about the Sheffield Steel industry and what life was like at this time? - What was it like to be poor during the industrial revolution, in Sheffield? - How did the Industrial Revolution change the life of people over time? 		
Key Concepts	Substantive		2nd Order
	LEGACY Society and civilisation (what is life like?) Poverty Revolution		Chronology Enquiry CHANGE AND CONTINUITY
Key Vocabulary 	<ul style="list-style-type: none"> • The process of making products using machines and factories • Industrial Revolution: A time of great change in Britain between 1750 to 1900 when machinery and factories became more important in making things, taking over from farming • Population: The number of people living in a particular place • Economy: The system of how money is used within a particular country • Agriculture: The process of producing food, and fibres by farming of certain plants or raising animals- farming • Poverty: The lack of basic human needs such as clean water, nutrition, healthcare, education and shelter • Sanitation: Sanitation is the system that disposes of human waste (Toilets and drains etc) • Over crowding: too many people living in a house or in a particular place or too many houses crowded together. • Child Labour – The use of young children to provide cheap staff to work in the factories, often in dangerous conditions. • Workhouses – a place where poor people were offered a place to stay and food in return for working • Villager: someone who lives in a village in the country • Rural: life in the country • Urban: life in the city • Capitalist: a person who uses their wealth to invest in trade and industry to make lots of money 		
Core Substantive Knowledge for teachers	<p>Knowledge about the Industrial Revolution:</p> <ul style="list-style-type: none"> • The Industrial Revolution began in Great Britain and spread to the rest of the world. • The Industrial Revolution was a time in British history where the country changed hugely from a mostly rural society to an industrial one. • This means that many British people moved from living in small towns and villages, where they were farmers, to huge cities, where they worked in places such as factories or mills. • It is called a revolution because it was such a huge change. The birth of the Industrial Revolution is the birth of the modern world that we know today. • The industrial revolution was a period of Railway Mania • By 1870, there were 100 000 steam engines at work in Britain. • The number of coalfields doubled between 1851 and 1881. 		

- In 1830, the first public railway between Liverpool and Manchester opened. In 1900, there were 22 000 miles of railway in Britain!
- In 1801, only about 20% of the population lived in towns. By 1851, it was over 50% and by 1881 about two thirds of the population lived in towns.

There were six main factors that came together to create the Industrial Revolution: *Population growth, Agriculture needed to create more food, the growth of factories, improvements in transport, the growing British Empire meant more trade across the world and the use of water to power machines*

To know what life was like in Victorian times:

- *Living conditions*
 - *Life in the workhouse*
 - *Conditions in factories*
 - *Jobs undertaken by children*
- People had long working hours: normal shifts were usually 12-14 hours a day, with extra time required during busy periods. Many children worked in factories.
 - They got very low wages: a typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with children three shillings (15p). For this reason, employers preferred to employ women and children.
 - People working in factories, particularly for children were treated badly: there was frequent "strapping" (hitting with a leather strap). Other punishments included nailing children's ears to the table, and dowsing them in water butts to keep them awake.
 - Children often had accidents and died because they were forced to crawl into dangerous, unguarded machinery.
 - Health: The air was full of dust, which led to chest and lung diseases and loud noise made by machines damaged workers' hearing.
 - Overcrowding: due to large numbers of people moving to the cities, there were not enough houses for all these people to live in. Rooms were rented to whole families – often 10-12 people lived in one room.
 - Waste disposal: gutters were filled with litter. Human waste was discharged directly into the sewers, which flowed straight into rivers.
 - Poor quality housing: houses were built very close together so there was little light or fresh air inside them. They did not have running water and people found it difficult to keep clean.
 - Lack of fresh water: people could get water from a variety of places, such as streams, wells and stand pipes, but this water was often polluted by human waste.
 - Most houses did not have running water or toilets – in many streets, up to 100 houses had to share a water pump and an outside toilet.

The impact of disease: typhus, typhoid, tuberculosis and cholera all existed in the cities of England. Overcrowding, low standard housing and poor quality water supplies all helped spread disease. Many people died. John Shaw proved Cholera spread through infected water in 1854.

Steel City

- Sheffield is famous for its steel industry
- Sheffield was the first established as an Anglo Saxon village, after the Romans left Britain.
- It became a city in 1893.
- The steel industry dates back to at least the 14th century.
- By 1600, Sheffield became the biggest producer of cutlery outside of London.
- In 1740 Benjamin Huntsman discovered the crucible technique for steel manufacture, at his workshop in the district of Handsworth. This process had an enormous impact on the quantity and quality of steel production and was only made obsolete, a century later. (The Crucible is named after this process)
- In 1856 Henry Bessemer's invention of the Bessemer converter allowed the true mass production of steel.
- Bessemer had moved his Bessemer Steel Company to Sheffield to be at the heart of the industry. Thomas Boulsover invented Sheffield Plate (silver-plated copper), in the early 18th century.
- A major Sheffield steel invention was that of stainless steel by Harry Brearley in 1912, and the work of Profs. F. B. Pickering and T. Gladman throughout the 1960s, '70s, and '80s was vital to the development of modern high strength low alloy steels.
- In 1916 an elephant called Lizzie was used in the steel industry. During her time in the city, Lizzie became a legend. She was loved by everyone and won a place in the heart of every resident in Sheffield.

	<p>She was often seen plodding through the city's streets, up and down the city's hills, venturing between factories to ensure Sheffield's furnaces continued to roar before resting in her stable at what is now the Hancock & Lant building on Lady's Bridge</p> <ul style="list-style-type: none"> • Sheffield is built upon seven hills and has the waters of five rivers running through it; including the Don, Sheaf and the Porter Brook. Sheffield moved goods using canals. Then along came the railways and in 1873 the first trams were introduced to Sheffield. They were horse drawn trams which were later replaced in 1899 by electric trams. • In 1994 the Supertrams came to Sheffield 				
	<table> <tr> <th>Important events or inventions</th><th>Important People</th></tr> <tr> <td> 1767 Richard Arkwright invented a machine powered by water to spin cotton. 1776: James Hargreaves invented the Spinning Jenny, which spun lots of balls of yarn at once to make cloth. 1778 – James Watt's steam engine invented 1784 – The power loom is invented 1800s – A range of inventions are created that change the way products are made and how people do their jobs 1800s – Factories start to be opened across the country, offering jobs that previously didn't exist 1825: Stephenson invented the Locomotive, which was a high pressure steam engine, used to move goods quickly on a railway line. 1833: Factory Act banned children under 9 from working and they had to have 2 hours of education 1844: Factory Act - 3 hours of education for all children under 13 1855 – Bessemer Steam Engine is created </td><td> James Watt: Joseph Locke Isambard Kingdom Brunel Sir Henry Bessemer Charles Dickens Robert Peel: created the first Police Force in 1829 Dr John Shaw: proved that Cholera spread through contaminated water in 1854 because of living conditions Queen Victoria: was the queen from 1837-1901 </td></tr> </table>	Important events or inventions	Important People	1767 Richard Arkwright invented a machine powered by water to spin cotton. 1776: James Hargreaves invented the Spinning Jenny, which spun lots of balls of yarn at once to make cloth. 1778 – James Watt's steam engine invented 1784 – The power loom is invented 1800s – A range of inventions are created that change the way products are made and how people do their jobs 1800s – Factories start to be opened across the country, offering jobs that previously didn't exist 1825: Stephenson invented the Locomotive, which was a high pressure steam engine, used to move goods quickly on a railway line. 1833: Factory Act banned children under 9 from working and they had to have 2 hours of education 1844: Factory Act - 3 hours of education for all children under 13 1855 – Bessemer Steam Engine is created	James Watt: Joseph Locke Isambard Kingdom Brunel Sir Henry Bessemer Charles Dickens Robert Peel: created the first Police Force in 1829 Dr John Shaw: proved that Cholera spread through contaminated water in 1854 because of living conditions Queen Victoria: was the queen from 1837-1901
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Core Knowledge: 2nd Order Knowledge	<p>Enquiry linked to the Steel Industry in Sheffield:</p> <ul style="list-style-type: none"> • Uses documents, printed sources, the internet, databases, pictures, photos, music, artefacts, historic buildings and visits to collect information about the past. • Asks questions such as 'what was it like for a during?' <p>Chronology</p> <ul style="list-style-type: none"> • Uses words and phrases: century, decade, CE/BCE, BC, AD, after, before, during. • Divides recent history into present, using 21st century, and the past using 19th and 20th centuries. • Names and places dates of significant events from past on a timeline. • Decide on a suitable scale for their timelines and begin plot the points with increasing accuracy. 				
Possible Activities to consider	<ul style="list-style-type: none"> • Use a range of sources: maps, photos and drawings (both secondary and primary) to find out about the steel industry in Sheffield • Drama, freeze frames and hot seating • Diary writing of child workers in the steel industry • The similarities and differences of cities, towns and villages • Research about different important inventions and their legacy • Drama and role play about child workers and life in the workhouse • Victorian day with child workers and children at school • Fact files • Creating timelines • Explore similarities between past and present and rich and poor: Compare modern day with Victorian Schools or life as a child • Visit to Kelham Island 				
Assessment	<p>Through assessment of pupils work, quizzes, assessment pieces and observations during class discussions, assess:</p> <ul style="list-style-type: none"> - Pupils have a good body of knowledge (identified as core knowledge by the teacher) about the industrial revolution, life in Victorian Times for children in particular and key events and significant people within the development of Sheffield's Steel industry - Pupils understand the reasons for the industrial revolution and how life changed during this time - Pupils have used evidence and key knowledge to reflect on the legacy of the industrial revolution and the development of the Steel Industry in Sheffield. - Pupils can draw conclusions from a range of evidence. 				

Links	https://www.bbc.co.uk/news/uk-england-south-yorkshire-40669159 https://www.mylearning.org/resources/a-day-in-the-life-of-a-young-sheffield-steel-worker-in-victorian-times (Audio account) https://www.mylearning.org/stories/a-day-in-the-life-of-a-young-sheffield-steel-worker/resources (Excellent site for resources) https://www.sheffield.ac.uk/news/nr/lizzie-elephant-sheffield-steel-industry-1.588712
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