

Week Three tasks

This chapter in the Kerboordle book is all about the Industrial Revolution and how Britain changed at this time. I will be setting you pages to read and tasks to complete each week.

To begin with, you will need to log in to kerboordle (check the help sheet on the HMS website if you are unsure). Once you have logged in, you will need to click on KS3 History 4th Edition. You will then be able to see any assignments you have been given, and complete them by clicking on the 'assessment' tab. You will also be able to look at the student book by clicking on 'digital book'.

7.4 – How were factory working conditions improved? Read the pages and complete the end of lesson assessment quiz. As an extension, you could also try completing some or all of the tasks in the book.

7.4 How were factory working conditions improved?

On 4 June 1832, 23-year-old Leeds factory worker Elizabeth Bentley was interviewed by Michael Sadler, a politician who was investigating working conditions. Part of the interview is given below. Sadler's report, published in 1832, shocked the public. Some other investigations and reports followed and working conditions slowly began to change. So what did Elizabeth say? Who else, as well as Sadler, tried to change things? And how did the changes benefit people like Elizabeth Bentley?

Objectives

- Identify why some factory owners were unwilling to improve working conditions.
- Examine key reforms that eventually improved life for Britain's workers.

SOURCE A From the Sadler Report, published in 1832, for which 89 people were interviewed. This is adapted from Elizabeth Bentley's interview. She was born in 1809.

Questions What age did you begin work as a factory worker?
Answer: When I was six years old.
Q: What were your hours of work?
A: As a child I worked from 6am till 10pm.
Q: What if you got tired, or were late, what would they do?
A: Hit us with a strap.
Q: What is the factory like?
A: Dirty. You cannot see each other for dust.
Q: Did this affect your health?
A: Yes, it was so dirty, the dust got up my lungs, and the work was so hard, I got so bad in health, that when I worked, I pulled my bones out of their places.
Q: You are considerably **deformed** because of this?
A: Yes, I am.
Q: How old were you when this happened?
A: I was about 13 years old when I began coming, and it has got worse since.

Were conditions in mines any better?
Elizabeth Bentley worked in a factory – but mines weren't much better. One eight-year-old girl who opened and closed wooden doors (known as 'traps') describes her job in Source B.

SOURCE B Adapted from an investigation into mine conditions in 1842. Sarah Gosler was asked to describe her working conditions.

'I have to tap under a light and I'm scared. I go at six, and come out at seven. I never go to sleep. Sometimes I stay when I have light, but not in the dark, I don't sleep then. I don't like being in the pit. I am very sleepy when I go sometimes, I would like to be at school for better than in the pit.'

SOURCE C An image from the 1842 mine report. Trappers would open and close wooden doors to allow fresh air to flow through the mine. The children pushing the coal carts were known as 'putters'.

Time for change
In the 1830s, many people thought that the government should not interfere with the way factories and mines were run. They believed that it was up to the owners to decide how to run them, and that introducing laws to force owners to spend money on improvements could harm profits. They also argued that reducing the hours that children and women worked might cause money problems for the family.

However, a growing number of people were very concerned about working conditions, especially for children. Reformers like Lord Shaftesbury, Richard Oastler, John Fielden and Michael Sadler began to campaign for laws to protect factory and mine workers. Some of these people were motivated by their religious beliefs, while others thought that people might work harder if they were treated better. Some (such as Sadler) collected evidence to prove how bad things were.

Change is coming
After reading the reports, Parliament accepted that it had a duty to look after the more vulnerable people in society. From 1833, new laws (for Acts) made changes to the working lives of women and children. Men, it was believed, could look after themselves.

Some factory owners hated the changes. They felt politicians had no right to interfere in their business. But new laws kept being passed and, gradually, they began to protect more and more workers. Inspectors were appointed to enforce the laws and by 1900 factories and mines had become safer and more bearable. They still weren't particularly pleasant places to work, however.

Key Words Act, deformed, public, reformer, trade union

1833 FACTORY ACT

- No children under nine to work in factories.
- Nine hours of work per day for children aged nine to 13.
- Two hours of school per day.
- Factory inspectors appointed (but there were only four).

1842 MINES ACT

- No women or children under ten to work down a mine.
- Mine inspectors appointed.

1844 FACTORY ACT

- No women to work more than 12 hours per day.
- Machines to be made safer.

1871 TRADE UNION ACT

- Trade unions made legal.
- Workers all doing the same job (trade) – like railway workers or the army, for example – were allowed to join together (form a union) to negotiate with their employers for improvements to pay and working conditions. As a last resort, all union members could go on strike.

1847 TEN HOUR ACT

- Maximum working day for all women and workers under 18.

1878 FACTORY AND WORKSHOPS ACT

- No women to work more than 60 hours per week.
- No children under ten to work.
- Laws on safety, ventilation and machines.

1893 FACTORY ACT

- Children under 13 to work a maximum of 30 hours per week.

Fact
At the time, some people argued that Sadler exaggerated when writing up his investigations. They said he wanted conditions to appear worse than they were, because that would shock people into supporting his campaign.

Source Analysis

Read Source A

- Write down three words or phrases that a reader of this report might feel.
- Michael Sadler was accused of exaggerating some of the interviews. Does that mean the interviews are not useful to a historian?
- How could you follow up Source A to find out more about factory life in the 1830s?

Revolution, Industry and Empire: Britain 1558–1901

7.5 – 'Black gold' and the new 'Age of Iron'. Read the pages and complete the end of lesson assessment quiz. As an extension, you could also try completing some or all of the tasks in the book.

7.5 'Black gold' and the new 'Age of Iron'

The way people lived and worked changed dramatically from the late 1700s. New machines changed the way goods were made, and a large proportion of the population moved from the countryside into the growing towns and cities. 'Black gold' and the iron industry were responsible for many of these changes. But what was 'black gold'? Why was iron so important?

Objectives

- Examine why there was an increase in the demand for coal.
- Outline how iron was produced.
- Describe how iron-making became such an important business.

What is coal?
Coal is a hard, black rock that is buried underground. Specialist workers, called miners, get coal out of the ground from mines. Once it is lit, coal burns for a long time – much longer than wood. In the late 1700s, coal was very cheap and used mainly to cook with and heat houses. As the population increased, more coal was needed, and it began to be used to power steam engines in the new factories that were springing up all over the country. Coal was also used in the making of bricks, pottery, glass, beer, sugar, soap and iron.

Black gold
By the 1800s, coal was also required to power steam trains and steam ships. The need for more coal meant more money for mine owners. Some mine owners were making so much money from their coal that they began to refer to it as 'black gold'.

MAP A The coalfields of Britain in 1800.

A new Iron Age
The eighteenth century saw major advances in the iron industry. Iron had been produced in Britain since Roman times but in the 1700s it began to be used in all areas of life. The army used it for cannons, the navy for 'iron-clad' ships, and the new factories were built up with iron beams and used iron machines that were powered by iron steam engines. Iron was used to make tools, trains and railway tracks, and at home people had fireplaces with iron grates and cooked on iron stoves using iron pans.

How was iron actually made?

- Iron ore – rock containing iron – is dug from the ground.
- The ore is heated together with limestone (to remove impurities) and charcoal (called 'coke') in a furnace. The iron gets so hot it melts and pours out of the bottom of the furnace.
- Red-hot liquid iron is poured into cast-iron moulds and so on. Cast iron is strong but brittle and can be made into tools.
- When cast iron is reheated and hammered, the pockets of air are removed and it becomes wrought iron. This is purer and stronger, and can be bent into shapes to make chains, tools, furniture, railway tracks and so on.

The kings of Coalbrookdale!
As the population and the number of factories grew, so did the demand for iron. But the producers of iron faced a problem – Britain was running out of forests. Charcoal – made from wood – was needed to make iron. It was possible to use coal instead of charcoal, but coal contains too much sulphur (a chemical) and makes poor-quality iron. Luckily for Britain, a family called the Darbys got involved in the iron industry!

Abraham Darby I (1678–1717) In 1709, he discovered a way of using coal to make iron. Firstly, he heated it to remove the sulphur. This makes something called coke (not the drink). Cast iron made with coke is much better quality than cast iron made with coal – iron production could continue.

Abraham Darby II (1711–1789) He improved the process passed by his father, creating even more impurities and allowing wrought iron to be made from cast-iron coal.

Abraham Darby III (1759–1789) He decided to show the possibilities of the use of iron by building a magnificent iron bridge. He made the ironworks at Coalbrookdale famous throughout the world.

SOURCE B The iron bridge over the River Sever at Coalbrookdale. The bridge was opened on New Year's Day 1781. The week's first major bridge to be made entirely of cast-iron crossed a river.

Key Words cast iron, iron ore, significance, wrought iron

Ironbridge – one of the wonders of the world
Writers, artists and rich tourists came from all over the world to see this modern miracle – and Darby charged every one of them to walk across it! It was a fantastic advertisement for what could be achieved with iron, and iron production became one of Britain's most important industries (see C). No wonder people began to call the period the 'Age of Iron'.

MAP B Iron produced in Britain 1750–1900. After 1856, steel (made from iron) was started to be produced in Britain too. The figures in the table are in thousands of tons.

	1750	1800	1850	1900
Coal production	5000	11,000	50,000	225,000
Iron production	30	250	2000	9000
Steel production	300	4250	3500	5000

Over to You

- In no more than three sentences, explain how iron is produced.
- Explain why the demand for coal and iron increased in the 1700s.
- Look at Chart C. Draw a bar chart to show how Britain's iron and coal production increased.
a Write a description to accompany the chart, explaining the increase.
b Why do you think people were so impressed by the iron bridge at Coalbrookdale?

Significance
To decide if an event or development is historically significant or not, you have to assess: a) whether it was important at the time it happened; b) whether it's still important over a long time, perhaps even until now. Let's practice just part a for now.

- How significant was the coal mining industry for the population of Britain?

Revolution, Industry and Empire: Britain 1558–1901