

5.3

What were the short- and long-term impacts of the Industrial Revolution?

Short-term impacts of the Industrial Revolution

Between the 1750s and 1914, Britain, the USA and most countries in Europe transformed into industrial societies. New technologies and production methods changed societies in positive and negative ways in both the short and long term. Growth in the development of cities, changes in living and working conditions and the introduction of new laws became apparent fairly quickly. Other changes took place over much longer periods and were not initially obvious. Indeed, many argue that we are only now beginning to see many of the long-term effects of the Industrial Revolution.

Population growth and urban planning

One of the most obvious short-term impacts of the Industrial Revolution was the dramatic increase in world population. In 1750, the population of England and Wales was around 5.5 million people. By 1900, this figure was around 32.5 million. Throughout Great Britain and the rest of Europe, there was a mass movement of people from the rural areas to the growing cities. In 1801, only 17 per cent of the population of Europe lived in the cities. By 1891, this had grown to 54 per cent. In Britain, the growth cities were Leeds, Manchester and Birmingham, as well as London. After terrible initial problems with disease caused by poor or non-existent sanitation, city reform began with the introduction of some **urban planning**. Over time, conditions in the urban slums of factory towns and cities improved. The tenements (overcrowded rooming houses) were pulled down and replaced with new urban settlements, with positive consequences for residents. For example:

- residents in new housing, who previously had no running water and shared an outside toilet, now had access to running water, central heating and improved sewerage systems (see Source 5.56) that included their own toilets. Health conditions improved and there were fewer outbreaks of disease.

- planned, drained, and uncluttered and open spaces were created for sport and entertainment.
- gas-powered (see Source 5.57), and then electric, street lighting helped transform the atmosphere of the cities at night, reducing the gloomy, dangerous streets and encouraging leisure activities after dark, such as visits to theatres and music halls.
- cities began to develop suburbs (outlying communities) and new public transport systems allowed workers to live further away from the factories in which they worked. First there were horse-drawn trams and then came cable trams or electric trolley systems. The opening of London's underground railway network in 1863 encouraged more people to use public transport to move between their homes in the suburbs and work. As the population increased, so did the transport capacity and new lines were developed to service growing areas.



Source 5.56 The building of a London sewer, c. 1860



Source 5.57 'A peep at the lights in Pall Mall', is a satirical look at people's reactions to the new invention of gas-burning streetlights in London in 1807.

Improvements in living standards

There were other positive consequences of the Industrial Revolution on the lives of many people.

- Improvements in agriculture throughout the period of the Industrial Revolution reduced the risk of famine through crop failure. Increased food production also meant that people could afford better food in larger quantities, which in turn helped them stay healthier.
- Sport was encouraged in 'leisure time' in order to keep workers healthy. Sport and recreation became more important as working hours reduced during the 19th century.
- Mass entertainment, such as theatres and spectator sports, developed alongside newspapers and magazines for people of all classes. Literature was no longer just for the wealthy and learned.
- The development of railways meant that travel times were speedier. It also meant that travel for leisure was affordable, even for the working classes.
- Mass-produced consumer goods, such as clothing and crockery, became more affordable.
- The use of the telegraph and telephone meant that news could quickly be reported from around the world. Industrialists, merchants and ordinary people benefited from these more immediate ways of communicating, as well as from faster postal times from improved road and rail networks.

Historians and economists agree that standards of living did improve in the 19th century, although they disagree

about the timing of its benefits to the working class. For example, were large improvements in the lives of working-class people evident in the early or mid-1800s? Some studies have shown that workers' incomes grew rapidly from the 1820s. However, others contest whether this indicator of improvement balanced out the negative consequences of the Industrial Revolution, such as the harsh working conditions, high rents and crowded living conditions, and pollution.

Check your learning 5.13

Remember and understand

- 1 Identify the ways in which cities began to change in the second half of the 19th century.
- 2 Explain why sport and entertainment became more popular in this period.

Apply and analyse

- 3 Using Source 5.57 outline the ways in which the introduction of street lighting changed people's way of life.

Evaluate and create

- 4 In two columns, list the positive and negative aspects of the Industrial Revolution for working-class Britons in the 19th century. Decide whether it was a positive or negative development for the working class, giving reasons for your decision.

The emergence of socialism and trade unions

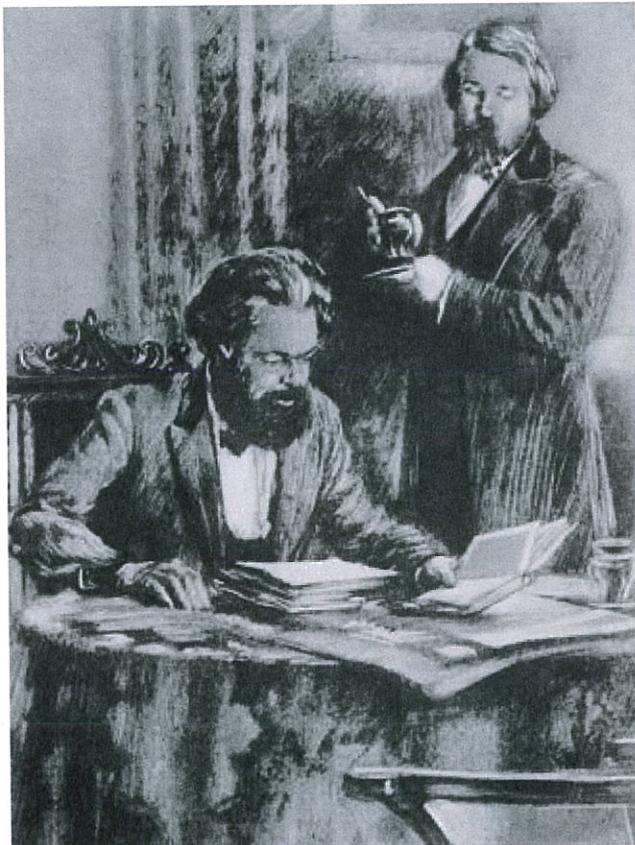
Urbanisation brought with it new social classes and social divisions. Investors (**entrepreneurs**) could earn vast fortunes. Their luxurious lifestyles and homes reflected their new status, a world removed from the poverty-stricken conditions of many of their employees.

Many workers found it hard to adapt to their new lives in the city. Some embittered workers began to demand better conditions and political rights. The result was a rising interest in social revolution, with philosophers and activists such as Karl Marx and Friedrich Engels gaining a following among the working classes.

In his influential book, *Capital: A Critique of Political Economy* (1867), German philosopher Karl Marx suggested

that the Industrial Revolution was driven by an economic system known as **capitalism**. Marx argued that capitalism was based on the exploitation of the workers by the owners of land, factories, railways and roads, shops and banks for profit. For capitalism to work, it relied on an 'army' of urban workers who would work for less than the value of their labour. Later theorists would build on Marx's work to promote alternative systems that they argued would deliver a fairer distribution of wealth.

These ideas were the beginning of **socialism**. They laid the foundations for the **welfare state** (under which the state took responsibility for all its subjects, rich or poor) and also for **communism** (under which the state attempted to abolish ownership of private property).



Source 5.58 An illustration showing Karl Marx (seated) and Friedrich Engels

Luddites

The first violent reaction to the Industrial Revolution occurred in Britain in 1811, when factory owners and manufacturers in Nottingham received threatening letters signed by 'General Ned Ludd and the Army of Redressers'. In protest at wage reductions and job losses caused by the adoption of stocking frames and automated looms in textile mills, former weavers attacked factories, smashed machines and killed the owner of one cotton mill. In response, the British Parliament made it a capital offence (a crime punishable by death) to destroy machines. Twenty-three **Luddites** (as the protestors became known) were executed in 1812 and many more were transported to Australia as punishment.

The Luddites were stamped out, but their actions showed that there was a need for political action that would benefit workers and improve the conditions that they were forced to accept.

Poor Laws and the rise of Chartism

In 1834, the British Parliament attempted to deal with changing social and economic conditions by reforming the 233-year-old Poor Law. The *Poor Law Amendment Act 1834* decreed that any poor or homeless person requiring assistance from the state (except for the old and sick) had to enter a government workhouse. These institutions kept people off the streets but often fed their residents poorly, worked them extremely hard and broke up families.

Widespread discontent over the Poor Law Amendment Act reminded many people that they had little say in government. Reform bills in 1832 had extended the right to vote, but only to about 600 000 out of 3 million men over the age of 21. At this time, all members of parliament were required to own property, which limited the number of men who could afford to stand for office. In 1838, a group of reformists published a People's Charter written as a bill that could be presented to Parliament, demanding a better life for people through the use of parliamentary change (see Source 5.60).

The movement in support of the People's Charter became known as **Chartism**. It spread through Great Britain and in June 1837, Chartists held a general meeting at the British Coffee House in Cockspar Street, London. One faction wanted to use peaceful persuasion while another suggested physical force, even revolt.

The House of Commons rejected the Chartist petition, even though it had 1.2 million signatures. The Chartists suggested that a general strike be called on 12 August but then called it off. Other groups were involved in destroying factory machinery and in strikes, often clashing with police and soldiers. By 1840, over 500 Chartists had been put in prison.

A second petition was drawn up in 1842 and presented to Parliament in May, this time with over 3 million names. Again it was rejected by Parliament. A third petition was drawn up in 1848, when revolutions in Europe encouraged a revival of the Chartist ideas. This petition was signed by

two million people but again it was ignored. As a result, many Chartists gave up on Britain and **emigrated** to other countries such as the USA, Italy and Australia.

Source 5.60 The Chartist claims

The six points of the People's Charter

- 1 A VOTE for every man twenty-one years of age, of sound mind, and not undergoing punishment for crime.
- 2 THE SECRET BALLOT—To protect the elector in the exercise of his vote.
- 3 NO PROPERTY QUALIFICATION for members of Parliament—thus enabling the constituencies to return the man of their choice, be he rich or poor.
- 4 PAYMENT OF MEMBERS, thus enabling an honest tradesman, working man, or other person, to serve a constituency, when taken from his business to attend to the interests of the country.
- 5 EQUAL CONSTITUENCIES, securing the same amount of representation for the same number of electors, instead of allowing small constituencies to swamp the votes of larger ones.
- 6 ANNUAL PARLIAMENTS, thus presenting the most effectual check to bribery and intimidation, since though a constituency might be bought once in seven years (even with the ballot), no purse could buy a constituency (under a system of universal suffrage) in each ensuing twelve-month; and since members, when elected for a year only, would not be able to defy and betray their constituents as now.



Source 5.59 An illustration of a Chartist meeting in 1848

Emergence of trade unions

Over time, workers found ways of banding together to protect their interests. Skilled workers realised that they needed to protect their jobs and incomes (in case of illness or injury) so they would not become victims of the Poor Laws. As a result, many formed Friendly Societies. Workers each paid a weekly subscription to their Friendly Society that would provide them with a small income during illness, an old-age pension, or money for a funeral when they died.

Some industries developed trade clubs, which quickly developed into unions that fought for common aims, such as higher wages. A union's main weapon against employers and industrialists was the threat of work stoppages known as strikes. The Combination Acts of 1799 and 1800 banned workers in Britain from meeting to demand increased wages or shorter working hours. If caught, the punishment for this crime was three months in jail.

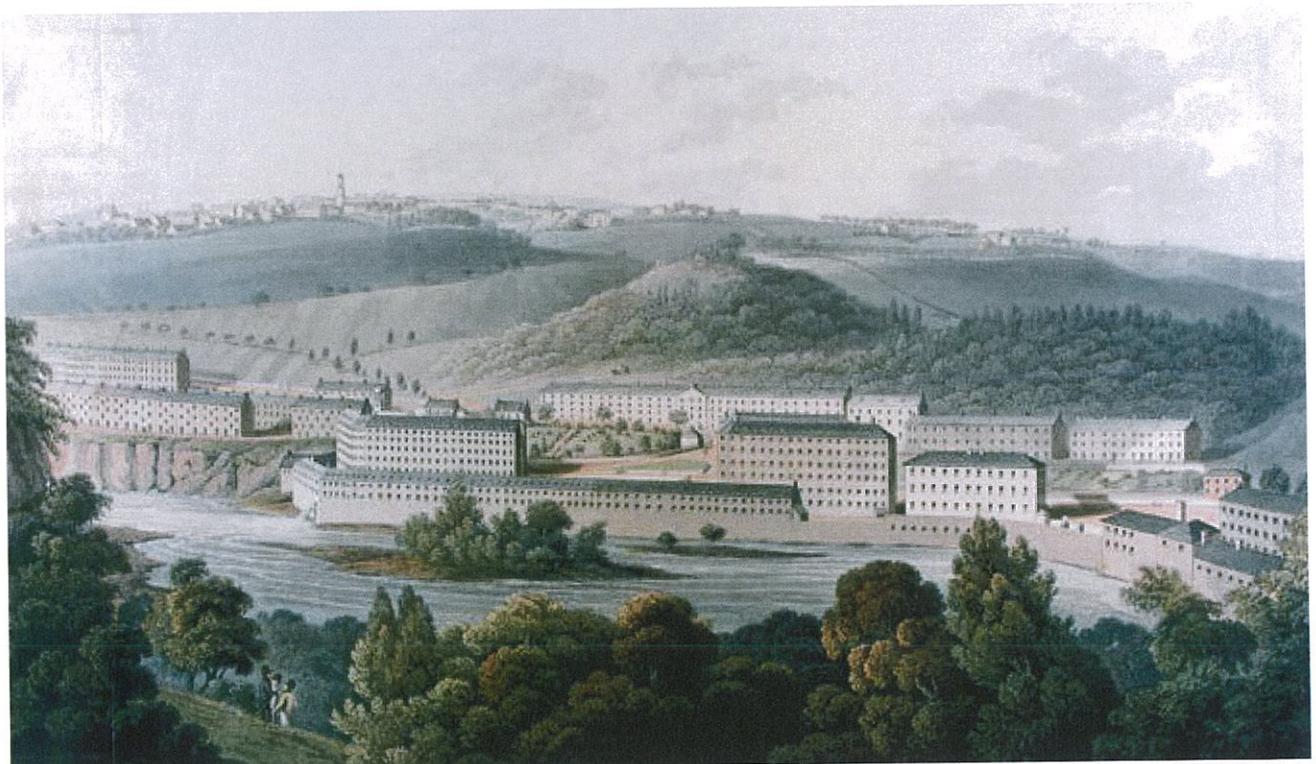
After protests and debate, **trade unions** were legalised in 1825, swiftly leading to the establishment of groups such as the National Association for the Protection of Labour, with over 100 000 members. The largest union was the Grand National Consolidated Trades Union, established in 1833 by

a mill owner, Robert Owen. Unlike many other mill owners, Owen supported the welfare of his workers. He abolished child labour in his mills (for those under the age of 10), provided schooling and good housing. He also paid good wages, including sick pay.

The Factory Acts

The Factory Acts were inspired by complaints about the employment of child labourers, who worked long days in appalling conditions. In 1802 and 1819, British politician and industrialist Robert Peel was instrumental in passing laws that restricted the hours that children had to work. Unfortunately, many mill owners had influence over local judges, so these laws were not enforced. By 1830, most of the 250 000 mill workers in Britain were still under the age of 18.

In a push to reduce the working day to ten hours, social reformer Lord Ashley succeeded in making it illegal for children under the age of nine to work at all. Those under 13 could work only a 48-hour week and, those aged 14–18, a 69-hour week. In addition, all children were to receive two hours of schooling per week, and inspectors were appointed to enforce the new rules.



Source 5.61 An artist's impression of Robert Owen's cotton mill at New Lanark in 1818. Unlike many industrialists at the time, Owen supported the rights of workers at his mills and established one of the largest trade unions.

In 1840, the Royal Commission on Children's Employment discovered that women and children were expected to carry loads of coal of up to 150 kilograms either on their shoulders or dragged behind them through narrow, low passages. A Mines Act was passed in 1842, banning all females as well as boys younger than ten from working underground. Other European countries introduced similar laws: in France in 1841 and in Prussia in 1839, laws limited the working hours of people under the age of 16 and banned the employment of children under nine in mines and factories.

In 1847, women in factories were restricted to a ten-hour day, which effectively reduced many of the men's hours as well. The final major change for this period came in 1874, when a maximum of 56 hours' work a week was introduced – ten hours a day from Monday to Friday, and six hours on Saturdays.

Emergence of modern lifestyles

Robert Owen was not the only factory owner who came to see that happier workers would work harder. Titus Salt, an industrialist and politician from the English town of Bradford began experimenting with the idea of providing well-built homes with drainage for his employees, as well as a local hospital, public baths, churches and schools.

In France, workers were allowed to gradually buy the cottages in which they lived. These workers' cities also had schools, hospitals and baths. Similar 'cities' were developed in other European nations.

Improving health conditions led to fewer outbreaks of disease and more efficient workers. Even the harshest of mill owners began to clear slums. Cesspools were removed, tenements (overcrowded rooming houses) were

pulled down, and open spaces were created for sport and entertainment. Sport was encouraged in 'leisure time' in order to keep workers healthy.

Increased leisure time led to other changes. Mass entertainment, such as theatres and spectator sport, developed alongside newspapers and magazines for people of all classes – not just literature for the well educated.

Compulsory education for children eventually grew into educational opportunities for other workers, with Mechanics' Institutes offering courses in technology and self-improvement. Eventually, these broadened to offer other subjects, including literacy and arithmetic.

Improvements in agricultural production gave people better diets and reduced the risk of famine through crop failure. Workers could now afford more and better food that, in turn, helped them stay even healthier.



Source 5.62 Young American boys working as mine helpers, c. 1900, before the introduction of child labour laws in the USA

Check your learning 5.14

Remember and understand

- 1 What did Karl Marx think was the driving force behind the Industrial Revolution?
- 2 Look at the first point of the People's Charter in Source 5.60. What large group was left out of their demands for voting rights?
- 3 In your own words define the term 'Luddite'.
- 4 Prior to 1825, what was the legal punishment if workers gathered to discuss demands for higher wages?

Apply and analyse

- 5 Read Source 5.60. In your own words, explain what a 'property qualification' was. Why did the Chartists want to abolish the property qualification for Members?

- 6 Explain how workers benefited from joining Friendly Societies.

Evaluate and create

- 7 Many people today who avoid using computers or new technology are called 'Luddites'. Given what you have learned, describe how the original 'Luddites' differ from modern-day 'Luddites'.
- 8 Create a poster advertising a Chartist meeting. Include the six proposals shown in Source 5.60 on your poster, ensuring that you explain each proposal in your own words so that they can be understood by young people today.