

1. Population increase and agricultural expansion

- The **Industrial Revolution** was the result of a combination of different economic and technological changes that occurred in the late 18th century.
- During the 18th century, **population growth** in Europe, especially in Great Britain, increased considerably.
- The causes to these changes were: **advances in hygiene** and medicine. These improvements led to a decrease in mortality and a slight increase in birth rates.
- The **increase** in agricultural and **industrial production** created a need for better productivity:
 - In the 18th century a series of **Enclosure Acts** were passed that created larger and more profitable farms. Sometimes these acts meant that many people lost their rights to cultivate the land.
 - **New machinery** was also introduced along with new crops and fertilisers. By the 19th century, farmers were beginning to use the Norfolk crop rotation system.

2. The birth of industry

- The most important **technological innovation** during industrialisation was the introduction of machinery. Each technical advance meant an increase in productivity and costs.
- The invention of the **steam engine** in 1769 became a symbol of the Industrial Revolution. The steam engine used coal as a fuel, replacing the traditional energy sources.
- In Great Britain, the first sector to use machines was the **textile industry**. New inventions appeared, notably the flying shuttle and the spinning jenny. These machines enabled large amounts to be made in less time and for less money.
- In the coal and iron sector the use of coking coal for making iron and steel production also increased. This led to a major development in the production of iron as a raw material.

3. The growth of industry

- The increase in agricultural and industrial production created a need for the development of a good transport network.
- It was the use of the steam engine on trains and ships that really changed transport:
 - The first passenger railway line was built in Great Britain in 1825. Over the next few decades lines were built throughout Europe. Train travel shortened journey times.
 - The first **steam ships** (1807) began operating in the United States of America.
- The Industrial Revolution created a **market economy** in which goods were produced to sell on a large scale. More efficient transport systems allowed domestic trade between different regions and trade abroad also increased in the mid-19th century.

4. Industrial capitalism

- The father of **economic liberalism** was Adam Smith. He established a set of principles based on:
 - Self interest and maximum benefits would drive the country.
 - The market would self-regulate and prices would be determined by supply and demand.
 - Governments would not intervene in the economy.
- Industrial expansion led to the appearance of new modern credit facilities, such as the state bank.
- In comparison to Britain, **industrialisation** took much longer to get started in Europe.

5. The Second Industrial Revolution

- In the late 19th century new energy sources and industries prompted a **Second Industrial Revolution**.
- New energy resources replaced coal. They were:
 - **Electricity** became important in transport, industry and communication.
 - **Oil** revolutionised transport as it was used as fuel for the internal combustion engine, which led to the invention of the car.
- The desire to increase production and reduce costs saw factories start to produce on a much bigger scale (mass production). This system was called Taylorism. Taylorism gave rise to Fordism.
- The capital required to install the technological innovations and the desire to suppress competition led to a process of **industrial concentration** (pools, trusts, holding companies and monopolies).

6. The new industrial society

- Industrialisation changed stratified society into a **class based society**.
- The **Bourgeoisie** became the ruling class. The class was split into upper bourgeoisie, middle bourgeoisie and the petty bourgeoisie.
- The **proletariat** was made up of workers from the factories and peasant labourers. It was the most disadvantaged group in society. This forced women and young children to work.

7. Social movements: Marxism and anarchism

- During the first two decades of the 19th century workers expressed their opposition to mechanisation by destroying machinery (Luddism). Workers became more class conscious and created associations.
- In the mid-19th century, Marxism and anarchism came to the forefront of the workers class struggle:
 - El **Marxism**, inspired by Karl Marx, sought to bring about a worker's revolution to overthrow capitalism and create a classless society.
 - **Anarchism** called for the freedom of the individual advocated the elimination of private property. Anarchists opposed parliamentarism. Anarchism was divided into two sectors: one advocated direct violent action and the other sector favoured change through revolutionary unions.
 - **Internationalism** had two phases: the First International, which sought to unite Marxists, anarchists and trade unionists worldwide, and the Second International, which sought to coordinate the programmes and actions of the various socialist parties.