

## THE INDUSTRIAL REVOLUTION

### Important Inventions:

1. John Kay's flying shuttle (1730s)
2. James Hargreaves' spinning jenny (1768)
3. Richard Arkwright's water frame spinning machine (1769)
4. James Watt's rotary engine that could spin and weave cotton (1782)
5. Edmund Cartwright's power loom (1787)
6. Samuel Crompton's spinning mule (1790)

During the late 18<sup>th</sup> century and early 19<sup>th</sup> century, British industry underwent great changes. The term Industrial Revolution is applied to them. Earlier, goods were produced in limited quantities manually. But after the Revolution, goods were produced in large quantities in factories. There was political and financial stability in the country. England was free from foreign invasion. All the wars involving England were fought outside the country. Huge capital was available for investment.

During the Revolution, textile, coal and iron industries underwent a thorough change. Earlier, textile work was done by farmers. It was done by hand or ordinary implements. Carding was done by children, spinning by women and weaving by men. The system had many defects. Production was slow and could not meet the demand abroad. A series of inventions transformed the textile industry. The first mechanical invention was the flying shuttle by John Kay. The mechanism increased the pace of weaving. James Hargreaves invented the spinning jenny. A better machine was invented by Richard Arkwright. It produced a stronger yarn. The inventions by Samuel Crompton and Edward Cartwright resulted in better production.

George Stephenson invented the first locomotive. The first railway line between Stockton and Darlington was opened in 1825. Steam was also used for water transport. The industrial revolution also had bad results. The people had to live in smoky towns without proper sanitation. But, death rate was checked by improved medical facilities. The population increased to a great extent. Above all, England became the workshop of the world. Massive production led to fall in prices. More production led to employment for more people. In short, the factory became the symbol of the new social order.

### **The Industrial Revolution and Its Impact on the Society**

The Industrial Revolution had its beginnings in Great Britain in the second half of the 18th Century. Britain's emergence as the first industrial power was aided by the agricultural revolution of the 18th Century. Britain was richly supplied with important mineral resources, such as coal and iron ore, needed in the manufacturing process. The infrastructure advantages in Britain promoting rapid industrialization included public and private investment in bridges, canals & roads

Britain's cotton industry in the late 18th Century was responsible for the creation of the first modern factories. Inventions that proved vital to the industrialization of the British cotton textile industry included:

**The Steam Engine** : The invention of the steam engine played a major role in the Industrial Revolution. The **iron industry** was radically transformed during the

Industrial Revolution. Coke was used to burn away impurities in pig iron to produce an iron of high quality

**Revolution in Transportation:** The 18th Century witnessed an expansion of transportation facilities in England. The beginnings of **railways** can be found in mining operations in the country.

**The Industrial Factory** : Factory became the chief means of organizing labor for the new machines . Women and children were often used as labor in these factories. The rise of the industrial factory system deeply affected the lives and status of workers who now no longer owned the means of economic production and could only sell their labor for a wage

## **THE SOCIAL IMPACT OF THE INDUSTRIAL REVOLUTION**

### **Population Growth**

1. population increases had already begun in the 18th Century, but they became dramatic in the 19th Century
2. The Growth of Cities
3. prostitution and other criminal activities were rampant
4. New Social Classes: Workers in the Industrial Age