

The Industrial Revolution was a period from 1750 to 1850 (I personally think 1860 is a more accurate date) where changes in agriculture, manufacturing, mining, transportation, and technology had a profound effect on the social, economic and cultural conditions of the times. It began in the United Kingdom, then subsequently spread throughout Western Europe, North America, Japan, and eventually the rest of the world.

The Industrial Revolution marks a major turning point in history; almost every aspect of daily life was influenced in some way. Most notably, average income and population began to exhibit unprecedented sustained growth. In the two centuries following 1800, the world's average per capita income increased over tenfold, while the world's population increased over sixfold. In the words of Nobel Prize winner Robert E. Lucas, Jr., "For the first time in history, the living standards of the masses of ordinary people have begun to undergo sustained growth ... Nothing remotely like this economic behavior has happened before".

Great Britain provided the legal and cultural foundations that enabled entrepreneurs to pioneer the industrial revolution. Starting in the later part of the 18th century, there began a transition in parts of Great Britain's previously manual labour and draft-animal-based economy towards machine-based manufacturing. It started with the mechanisation of the textile industries, the development of iron-making techniques and the increased use of refined coal. Trade expansion was enabled by the introduction of canals, improved roads and railways. With the transition away from an agricultural-based economy and towards machine-based manufacturing came a great influx of population from the countryside and into the towns and cities, which swelled in population.

The introduction of steam power fuelled primarily by coal, wider utilisation of water wheels and powered machinery (mainly in textile manufacturing) underpinned the dramatic increases in production capacity. The development of all-metal machine tools in the first two decades of the 19th century facilitated the manufacture of more production machines for manufacturing in other industries. The effects spread throughout Western Europe and North America during the 19th century, eventually affecting most of the world, a process that continues as industrialization. The impact of this change on society was enormous.

The First Industrial Revolution, which began in the 18th century, merged into the Second Industrial Revolution around 1850, when technological and economic progress gained momentum with the development of steam-powered ships, railways, and later in the 19th century with the internal combustion engine and electrical power generation. The period of time covered by the Industrial Revolution varies with different historians. Eric Hobsbawm held that it 'broke out' in Britain in the 1780s and was not fully felt until the 1830s or 1840s, while T. S. Ashton held that it occurred roughly between 1760 and 1830.

Some 20th century historians such as John Clapham and Nicholas Crafts have argued that the process of economic and social change took place gradually and the term *revolution* is a misnomer. To counter argue these statements you can consider the works of Eric Hobsbawm, Phyllis Deane, John Belchem and Peter Mathias. This is still a subject of debate among many historians. GDP per capita was broadly stable before the Industrial Revolution and the emergence of the modern capitalist economy. The Industrial Revolution began an era of per-capita economic growth in capitalist economies. Economic historians are in agreement that the

onset of the Industrial Revolution is the most important event in the history of humanity since the domestication of animals and plants during the Sub Revolution in Agriculture.

Follow up questions:

- 1) According to Robert Lucas Jr. Why was the Industrial Revolution good?
- 2) How did the Industrial Revolution begin in Britain?
- 3) Discuss the role steam had in it.
- 4) If steam marked the 1st Industrial Revolution, what marked the 2nd?
- 5) What can't historians agree on to this day about the Industrial Revolution? What can they agree on?
- 6) Why might some historians feel that the word revolution is a misnomer for this period? What do you think?