# Industrial Revolution

A [Watt steam engine](http://en.wikipedia.org/wiki/Watt_steam_engine). The [steam engine](http://en.wikipedia.org/wiki/Steam_engine), fueled primarily by [coal](http://en.wikipedia.org/wiki/Coal), propelled the Industrial Revolution in [Great Britain](http://en.wikipedia.org/wiki/United_Kingdom) and the world.[[1]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-industrial-0)

The **Industrial Revolution** was a period from 1750 to 1850 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](http://en.wikipedia.org/wiki/United_Kingdom), then subsequently spread throughout [Western Europe](http://en.wikipedia.org/wiki/Western_Europe), [North America](http://en.wikipedia.org/wiki/North_America), [Japan](http://en.wikipedia.org/wiki/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.[[2]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-development-1) In the words of Nobel Prize winner [Robert E. Lucas, Jr.](http://en.wikipedia.org/wiki/Robert_Lucas%2C_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".[[3]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-Lectures_on_Economic_Growth-2)

Great Britain provided the legal and cultural foundations that enabled [entrepreneurs](http://en.wikipedia.org/wiki/Entrepreneur) to pioneer the industrial revolution.[[4]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-3) Key factors fostering this environment were: (1) The period of peace and stability which followed the unification of England and Scotland, (2) no trade barriers between England and Scotland, (3) the rule of law (respecting the sanctity of contracts), (4) a straightforward legal system which allowed the formation of joint-stock companies (corporations), and (4) a free market (capitalism).[[5]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-4)

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](http://en.wikipedia.org/wiki/Iron-making)techniques and the increased use of [refined coal](http://en.wikipedia.org/wiki/Coke_%28fuel%29).[[6]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-World_History:_Patterns_of_Interaction-5) Trade expansion was enabled by the introduction of [canals](http://en.wikipedia.org/wiki/Canal), [improved roads](http://en.wikipedia.org/wiki/Turnpike_road) and [railways](http://en.wikipedia.org/wiki/Rail_transport).[[7]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-Read_it-6) 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.[[8]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-7)

The critical manufacturing change that marks the Industrial Revolution is the production of interchangeable parts. Lathes and other machine tools of the Industrial Revolution enabled (1) high precision, and (2) the mass reproduction of parts with that precision. Guns, for example, had previously been made one at a time, with the parts filed to mate together accurately on one gun, but they were not made to mate with any other gun. With the repeatable precision of the Industrial Revolution, interchangeable parts for guns or other products could be produced on a mass basis, which dramatically reduced the price of the product.

The introduction of [steam power](http://en.wikipedia.org/wiki/Steam_engine) fuelled primarily by coal, wider utilisation of [water wheels](http://en.wikipedia.org/wiki/Water_wheel) and powered machinery (mainly in [textile manufacturing](http://en.wikipedia.org/wiki/Textile_manufacturing)) underpinned the dramatic increases in production capacity.[[7]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-Read_it-6) The development of all-metal [machine tools](http://en.wikipedia.org/wiki/Machine_tool) 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 [industrialisation](http://en.wikipedia.org/wiki/Industrialisation). The impact of this change on society was enormous.[[9]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-google-8)

**Napoleon Bonaparte** (1769 –1821) was a French military and political leader who rose to prominence during the latter stages of the [French Revolution](http://en.wikipedia.org/wiki/French_Revolution) and its associated [wars](http://en.wikipedia.org/wiki/French_Revolutionary_Wars) in Europe. As **Napoleon I**, he was [Emperor of the French](http://en.wikipedia.org/wiki/Emperor_of_the_French) from 1804 to 1814. He implemented a wide array of [liberal](http://en.wikipedia.org/wiki/Liberalism) reforms across Europe, including the abolition of [feudalism](http://en.wikipedia.org/wiki/Feudalism) and the spread of [religious toleration](http://en.wikipedia.org/wiki/Religious_toleration).[[2]](http://en.wikipedia.org/wiki/Napoleon#cite_note-2) His legal code in France, the [Napoleonic Code](http://en.wikipedia.org/wiki/Napoleonic_Code), influenced numerous [civil law](http://en.wikipedia.org/wiki/Civil_law_%28legal_system%29) jurisdictions worldwide.

The First Industrial Revolution, which began in the 18th century, merged into the [Second Industrial Revolution](http://en.wikipedia.org/wiki/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](http://en.wikipedia.org/wiki/Internal_combustion_engine) and [electrical power generation](http://en.wikipedia.org/wiki/Electric_power).

 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.[[16]](http://en.wikipedia.org/wiki/Industrial_revolution#cite_note-ReviewOfCambridge-15)

**Worksheet 1:**

1.) Briefly explain the term 'revolution'. (2)

2.) Where and when did the industrial revolution begin? How many years ago was that? (3)

3.) Explain in your own words what the industrial revolution entails. (3)

4.) Why do you think England was such a strong power in Europe during the industrial revolution? (3)

5.) Under whose power was France after the French Revolution? (1)

6.) England's military power was stronger than France in this time period, explain why. (2)

7.) The economy may be divided into three activities such as Primary, secondary and tertiary. During the industrial revolution there was a transition from agricultural to Industrial.

 In other words, a transition from \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_ activities. (2)

8.) Why did urbanization happen so fast during the industrial revolution? (2)

9.) What does it mean when rural communities wither? And why did it happen in this time? (3)

10.) When did the industrial revolution end? (1)