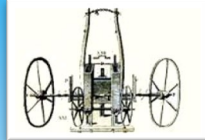


### Subsistence Farming



Before 1700 most people survived by growing food on small plots of land. Planting was done by hand, usually just scattering the seeds on the soil. Yields were often small - hopefully enough to live on.

### Seed Drill - 1701



Jethro Tull invents the seed drill. Seeds now planted much faster, in neat rows and at the right depth. A revolutionary invention that saved time, increased crop yields and helped population growth.

### 'Man' ... power - 1801+



More efficient farming meant fewer people needed to work on the land = **people had to find work in towns + cities**. Lower mortality rates meant there were **more children** without much else to do!

### Coal - 1800 to 1850



Britain had an abundance of coal - fuel for new machines such as steam engines. The coal was near the surface so easy enough to get to.  
**1800 - 10 million tonnes.**  
**1850 - 50 million tonnes.**

### Steam Engine - 1783



James Watt invented a much better version of the steam engine - previously developed by Thomas Newcomen in 1712. Human and animal power could now be replaced by machinery.

### Water Frame - 1769



James Arkwright invented the **Spinning Jenny** in 1764 - it was 8 x faster making textiles than a wheel. Richard Arkwright realised a better machine could use water to spin 128 threads at a time.

### Steel - 1856



Henry Bessemer found a better and **much cheaper way to make steel** using coal rather than charcoal. Steel was the essential building material for all manner of things after 1856.

### British Empire - 1600+



The British Empire had provided wealth + additional resources and a market for exports with exclusive trade.  
**North America - wood.**  
**India - cotton / indigo.**  
**Slave Trade - money, money.**

### Finance - c1775



London became the centre of finance and **private banks doubled from 1775 - 1800**. Entrepreneurs were described at the 'shock troops' of the revolution. **Banks gave loans to men with 'big ideas'**.

### Acts of Union - 1706 / 07



Acts signed to end wars between Scotland + England. Afterwards, **Britain enjoyed a period of relative peace**. Rivals such as France were focused on unrest rather than growth / industrialisation.

### Enlightenment - 1685



The start of the Age of Reason - **a new way of thinking**. This was a move away from tradition + towards new ideas, about limiting the role of authority, individualism and our innate ability to create.

### Roads + Macadam



John Macadam created better paved roads in the 1820s. **Transporting goods became faster and smoother**. Roads had already improved a lot after the creation of Turnpike Trusts in 1663.

### Canals - 1759+



The Duke of Bridgewater paid for canals to be constructed from Runcorn to Manchester. He wanted to more easily bring in coal to run his mills. Britain would soon have a large system of waterways.

### Factory System - 1769+



Before 1700 most manufacturing was domestic and only goods sold in local markets. After 1700 new inventions **allowed large scale manufacturing** with machines housed in mills + factories.

### Laissez Faire - c1750



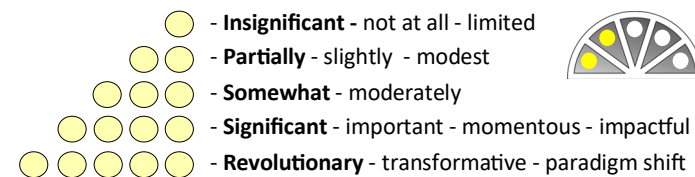
Britain's government was open to a very new way of thinking ... leaving businesses + entrepreneurs alone and / or helping generate wealth.  
**Low taxes + free trade policies.**

### Railways - 1829+



In 1829 George Stephenson invented a locomotive engine - named the Rocket. He went on to build the Liverpool to Manchester railway line.  
**L to M by road = 4 hours.**  
**L to M by rail = 2 hours.**

# What Factors Helped Fuel Britain's Industrial Revolution?



**Note** - events may fit into more than one category

Date	Event	Resources	Technology	Transport	Political	Economic	Social	Other	Significance	Rank
---	Subsistence Farming	---	---	---	---	---	---	---	---	---
1600	British Empire									
1685	The Enlightenment									
1701	Seed Drill									
1706	Acts of Union									
1750	Laissez Faire Gov't									
1759	Growth of Canals									
1769	Water Frame									
1769	Factory System									
1775	London Finance									
1783	The Steam Engine									
1800	Coal									
1801	Manpower - Population									
1820	Better Paved Roads									
1829	Rocket + Railways									
1856	Cheaper Steel									