

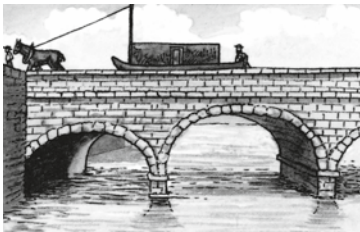


FROM AGRICULTURE TO INDUSTRY

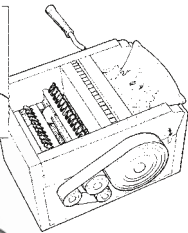
Up to the 18th century, life in European countries was based on farming. Most people worked at home. The Industrial Revolution changed society to become a society dependent upon industry. People started to make goods with machines. This was possible because they began to use steam¹ power. Many of the important inventions² regarding³ machines and their power system came from Britain – particularly around Manchester where the cotton⁴ and wool industries were very important.



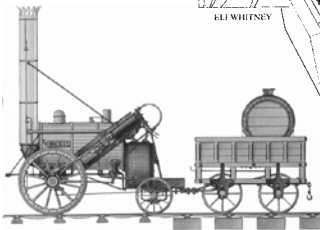
Look at these inventions below and connect the pictures to their descriptions!



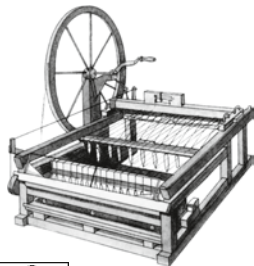
The first steam engine to pump water was built in 1712 by Thomas Newcomen. Later this machine was further developed by James Watt.



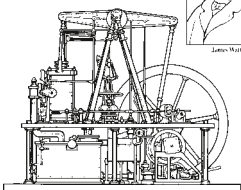
In 1764 a machine called the "Spinning Jenny" could spin several threads⁵ at one time.



The very first bridge made with iron was built in 1777 in Shropshire, England.



In 1793 Eli Whitney's "cotton gin"⁶ could separate cotton seeds⁷ from fibre⁸ at a fast rate⁹.



George Stephenson built a steam locomotive in 1829 called "the Rocket".

¹ Dampf, ² Erfindung, ³ betreffen, ⁴ Baumwolle, ⁵ Faden, ⁶ Baumwollentkernungsmaschine, ⁷ Baumwollsamensamen, ⁸ Faser, ⁹ hier: Geschwindigkeit



MACHINES

The Industrial Revolution began around 1760 when new machines that could spin cotton thread¹ very quickly were invented² in Britain. The machines worked so fast that the people who then had to weave³ the thread could not keep up⁴. The next step therefore was to invent weaving machines.

At the beginning, water wheels⁵ powered the machines, but by 1780 they couldn't cope⁶ anymore. In 1785 a British clergyman⁷, Edmund Cartwright, invented a power weaving loom⁸ that used steam power⁹ to drive it!



Use the above information to determine whether these sentences are true or false. What word can you discover? (Solution: see the answer page)

		True	False
1	The Industrial Revolution began in the 18 th Century.	M	I
2	At first spinning wool thread wasn't important.	N	A
3	New machines were invented in Britain.	N	D
4	A weaving machine was an important invention.	C	U
5	This was good because people worked too fast.	S	H
6	At first water wheels powered ¹⁰ the machines.	E	T
7	These water wheels eventually couldn't cope with the workload ¹¹ .	S	R
8	Edmund Cartwright invented a weaving loom that used steam power.	T	I
9	He was a German clergyman.	A	E
10	He invented it in 1785.	R	L

This city became an important centre of industrial production during the 19th century:

¹ Faden, ² erfinden, ³ weben, ⁴ mithalten, ⁵ Rad, ⁶ bewältigen, ⁷ Geistlicher, ⁸ Webstuhl, ⁹ Dampfkraft, ¹⁰ antreiben, ¹¹ Arbeitsbelastung



THE SITUATION IN BRITAIN

By 1800 there were about 500 steam engines¹ at work in Britain. For the very first time people had an artificial² source of power which was both cheap and efficient³. Iron⁴, coal and water was necessary – and available⁵ in Britain. There were enough workers and a high standard of iron craftsmanship⁶. As well as this, Britain could import cheap raw materials from their many colonies. Many businesses became rich and the owners could afford⁷ the expensive steam engines. All this made it possible for factories to manufacture⁸ lots of goods quickly. It was then no surprise that Britain was soon able to deliver⁹ these manufactured goods to the whole of Europe.



Look at the map of Britain below to help you answer the questions!



Which industry was more widespread¹⁰?

Name cities where the iron industry was important!

Where was there no industrial development¹¹?

Name some key cities in the Industrial Revolution!

¹ Dampfmaschine, ² künstlich, ³ effizient, ⁴ Eisen, ⁵ verfügbar, erhältlich, ⁶ handwerkliches Können, ⁷ (sich etwas) leisten, ⁸ erzeugen, ⁹ ausliefern, ¹⁰ ausgedehnt, verbreitet, ¹¹ Entwicklung

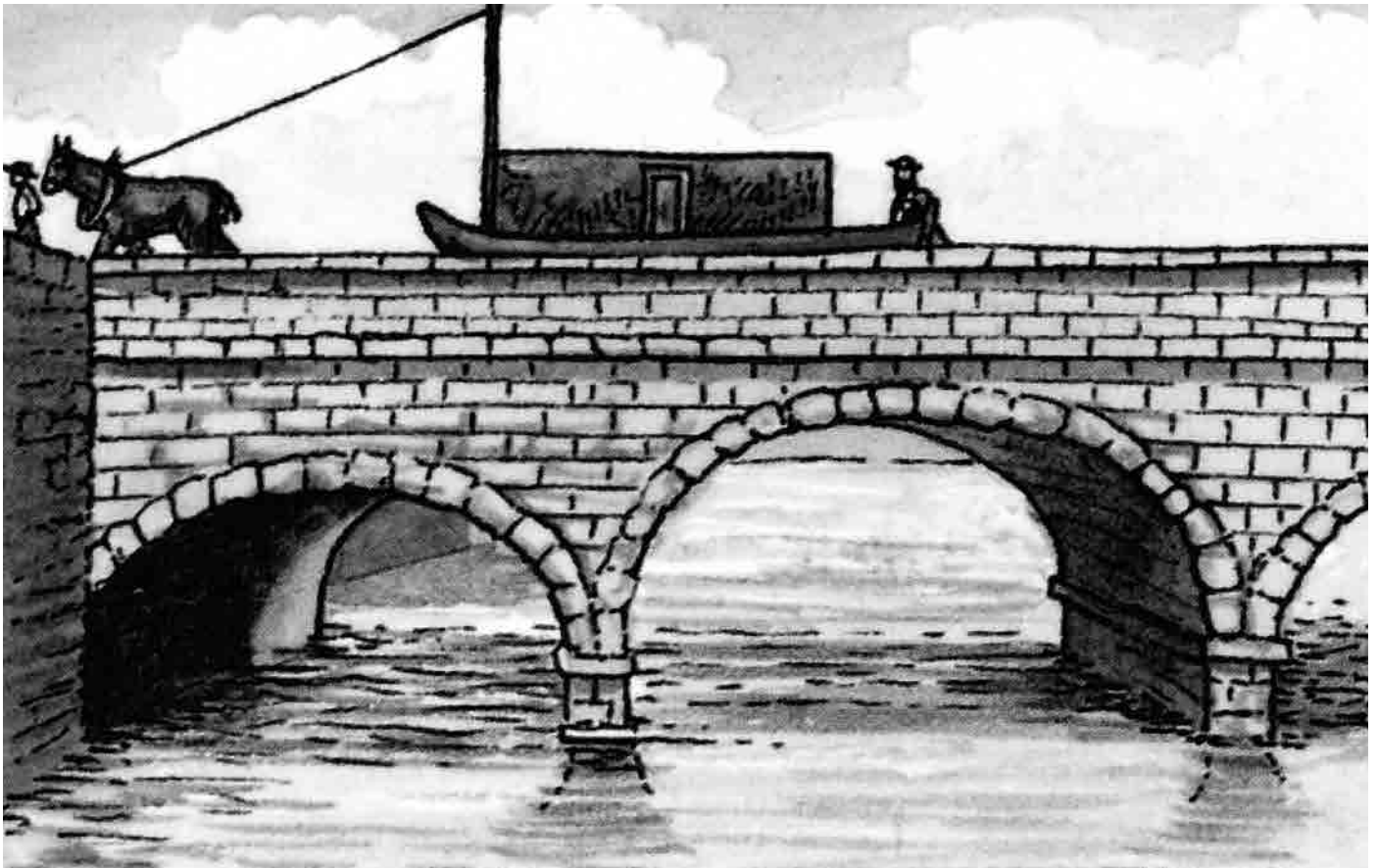


TRANSPORT

The new products of the Industrial Revolution needed a transport system to move them to the people. Between 1750 and 1830 a system of canals was developed to link important cities and rivers. These canals were used to transport coal and other heavy goods.

Most roads were poorly made. In 1804 the Welshman Richard Trevithick built the world's first steam locomotive. This key invention¹ started the communications boom. Britain soon built railways linking major cities² and then railways were built across Western Europe and in Northern America.

Belgium, France, Germany and the USA began their industrial process after 1815. By 1870 most of these countries had good railway connections. By the way the USA and Germany had a larger steel production by 1900 than Britain.



Which means³ of transport for industrial goods are there today?

¹ Schlüsselerfindung, ² Großstadt, ³ Mittel