



What was the Industrial revolution like for the Victorians?

The Industrial Revolution

- A period of huge change in Britain between 1750 and 1900.
- Before the **Industrial Revolution**, Britain was a **rural** country, most people lived off the land with **livestock**.
- People began to realise that coal and steam could be used to power factories, large machines, flour and cotton mills. This reduced the time it took to make something and increased the amount that could be made and so the **Industrial Revolution** began.
- Huge factories were built and towns expanded.
- People would **migrate** to the towns attracted by reliable work and pay from the factories.
- Houses for workers were built closer to the factories.
- Better transport links helped boost trade by transporting people and goods quickly and cheaply all across the country.



Key Inventions

1800s- Railway Network	1838- Photography	1840- Penny Black Stamp	1843- Christmas Cards
1852- British Pillar Post Box	1852- Public Flushing Toilet	1863- London Underground Railway	1872- The Penny-Farthing Bicycle
1876- Telephone	1879- Electric Bulb	1885- Petrol Motor Car	1895- X-rays

Workhouses

Huge buildings built for very poor people to live and work.	Whole families would move in together but men, women and children were all kept separate.	Jobs for men included working the field, breaking stones and chopping wood.	Jobs for women included laundry, sewing and scrubbing the floors.
Food was very basic including bread, porridge (gruel), watered down milk and occasionally meat and potatoes.	Children had to have 3 hours of reading, writing, arithmetic and Christian religion lessons.	Girls' education was learning to sew, knit and how to be a servant.	In 1930, workhouses were closed for good. Some of the buildings were used as part of the National Health Service.

Key Vocabulary

Key Word	Definition
Agriculture	The production of crops and livestock for food.
Commerce	The activity of buying and selling.
Urbanisation	The increase in the proportion of people living in towns and cities.
Canal	An artificial waterway constructed to allow the passage of boats.
Workhouse	A very controlling and brutal institution to provide employment for the poor.
Slavery	The ownership of a person as property, especially in regards to their labour
Technology	Machinery and equipment developed from the application of scientific knowledge.

Mesozoic Era 245-65 mil BCE	Stone Age 15000 BCE - 2500 BCE	Bronze Age 3000 BCE - 800 BCE	Iron Age Celts 800 BCE - 43 CE	Romans 43 CE - 410 CE	Anglo-Saxons & Scots & Vikings 410 - 793 CE	Anglo-Saxons & Vikings 793 CE - 1066	Normans 1066 - 1154	Plantagenets 1154 - 1485	Tudors 1485 - 1603	Stuarts 1603-1714	Georgians 1714 - 1837	Victorians 1837 - 1901	Edwardians 1901 - 1910	WW1 1914 - 1918	WW2 1939 - 1945	Post-War 1945 - 1980	Modern Britain 1980 - Now
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Beam bridges

Beam bridges are one of the simplest forms. Pillars are placed across the space and the deck runs along the top. A beam bridge can also be called a girder bridge. They have not often used over long spans as they require more pillars to keep them strong.



Key Vocabulary

Key Word	Definition
abutments	Supports that carry the load of a bridge
span	The distance between two bridge supports
support	A thing that bears the weight or keeps it upright
framework	An essential supporting structure of an object
pressure	Continuous physical force exerted on or against an object.
deck	The part of the bridge you travel across

Suspension Bridges

Suspension bridges have cables attached to pillars. The cables attach to the deck to hold the bridge up. They can be used across large areas, but because they hang down, they can actually move and swing in high winds.



Arch bridges

Arch bridges spread the weight of the arch through the curved arch and into the abutments at each end. At the top of the arch there is a 'key stone' that helps spread the weight across the arch bridge.



Cantilever bridge



A cantilever bridge is only supported at one end. Often there is a cantilever bridge built on each side of a river and they meet in the middle to form the bridge.

Science



Key Word	Definition
forces	Pushes or pulls
gravity	A pulling force exerted by the Earth (or something with mass)
weight	The measure of the force of gravity on an object
mass	The measure of how much matter is inside an object
friction	A force that acts between two surfaces or objects that are moving or trying to move across each other
air resistance	A type of friction caused by air pushing against a moving object
water resistance	A type of friction caused by water pushing against any moving object.
buoyancy	An object is buoyant if it floats. This is because the weight of the object is equal to the upthrust.
upthrust	A force that pushes objects up, usually in water.

Examples of **forces** in action:



Water resistance and air resistance are forms of friction. Friction is sometimes helpful and sometimes unhelpful. For example, air resistance is helpful as it stops the skydiver hitting the ground at high speed. Friction on a bike chain can make the bike harder to pedal so it is unhelpful.



I know that a force is a push or pull that can speed up, slow down, stop or start a movement. I know that magnets can cause this movement at a distance.



When an object moves on a surface, the texture of the surface and the object will affect how it moves. This is **friction**. It is easier to push or pull something along a smooth surface than a bumpy surface



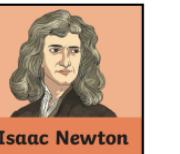
When an object moves through the air, **air resistance** can act between the moving surfaces, acting to slow the movement down.



When an object moves through the water, **water resistance** can act between the moving surfaces, acting to slow the movement down.



Gravity is a force that holds things to the Earth's surface and prevents things from floating off into the Earth's atmosphere. It ensures that unsupported objects fall back down to Earth.



Isaac Newton is famously thought to have developed his theory of gravity when he saw an apple fall to the ground from an apple tree.