



# The Great British Railway



## Timeline

1500	1750	1812	1825	1850	1863	1879	1912	1968
Railways are used in mines to move coal and materials	Wooden and iron rails pulled by horses to move coal to harbours	Invention of the steam train	The first railroad opens in Britain	Luxury steam trains with soft seats, sleeping and dining	The Metropolitan is opened as the first underground railway	The first electric train presented in Berlin (Germany)	First diesel locomotive runs in Switzerland	The first high speed trains run in Japan

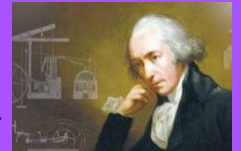
### Railway Mania!

After the invention of the steam engine, railways really started to take off. Stephenson's Rocket was the first to transport passengers in 1830 from Manchester to Liverpool and by 1848 over 7000km of railway track had been built connecting London to most major cities.



### James Watt (1736-1819)

Scottish engineer and inventor whose steam engine contributed substantially to the Industrial Revolution.



### The Need for Effective Transportation

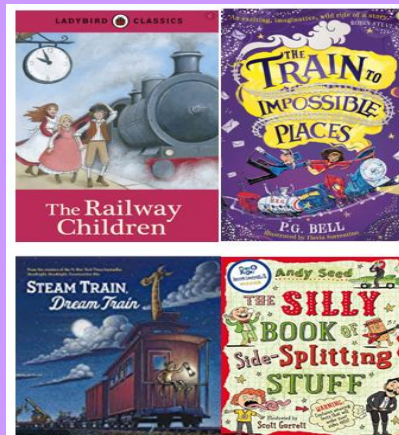
The increased use of factories and need for raw materials (due to the industrial revolution between 1750s -1850s), along with an increase in population (and need for food) meant Britain needed a way to transport larger amounts, quicker than ever before. Roads were not good enough and canals were a slow form of transportation.

### George Stephenson (1781-1848)

He worked on the development of railway tracks and bridge building and also designed the 'Rocket' which won the Rainhill Trials in 1829.

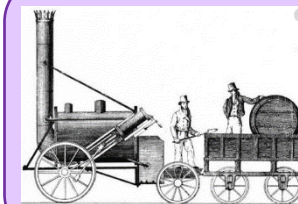


### BOOKS TO READ WITH THIS TOPIC



### Positive Effects

Seaside resorts developed making cheap day trips possible; the delivery of post became faster; factory owners could get raw materials and products to market faster; national newspapers developed; suburbs of towns developed as richer people moved there to travel to work by train; it created more jobs; it allowed children to travel into cities to attend schools and travel became faster and cheaper generally.



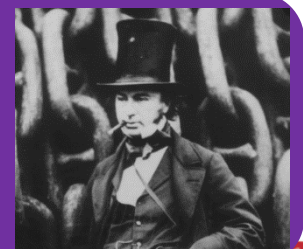
Stephenson's Rocket

### Negative Effects

Pollution increased, canals and stage coach companies could not compete with locomotives and coaching inns lost profits.

### Isambard Kingdom Brunel (1806-1859)

Famous engineer, Isambard Kingdom Brunel, played a key role in Britain's industrial revolution, designing and constructing railway lines, bridges, tunnels and docks around the country, as well as providing massive advances in naval architecture.





transportation

**Transportation** is when something is transported (moved) somewhere else.



power

The impact on the individual (influence).



steam train

A **steam train** is a train which is powered by burning coal.



Mallard

The **Mallard** is the fastest steam train, built by Sir Nigel Gresley. It reached 126mph.



high-speed train

A **high-speed train** (the bullet train) is a train which can reach up to between 120mph and 160mph.



eight point compass

There are **eight points** on a **compass**.



diesel train

A **diesel train** burns diesel as fuel (like cars) and are far more powerful than previous steam locomotives.



electric train

An **electric train** is a train that is powered by electricity from which they have collected from overhead cables.



Rainhill Trail

The **Rainhill Trail** is a competition going from Liverpool to Manchester to find out which is the best locomotive.



air pollution

**Air pollution** is when harmful gases, smoke and chemical get in to the air, often from cars, plane and factories.



locomotive

A **locomotive** is an engine which provides the power to pull a whole train made up of carriages or wagons. It is the front part of the train.



freight train

A **freight train** is an incredibly long train with more than one locomotive used to transport goods.



Metropolitan

The **Metropolitan** is the first underground railway created beneath the streets of London, Paris and New York.



Industrial Revolution

The **Industrial Revolution** describes the time when changes in manufacturing and transportation began. Fewer things were made by hand because large factories started using machines.

mph



mph

**MPH** means miles per hour. We use mph to measure how fast a vehicle is travelling.



invention

An **invention** is something that has been invented (made).



manufacturing

**Manufacturing** is the making of things using machines.