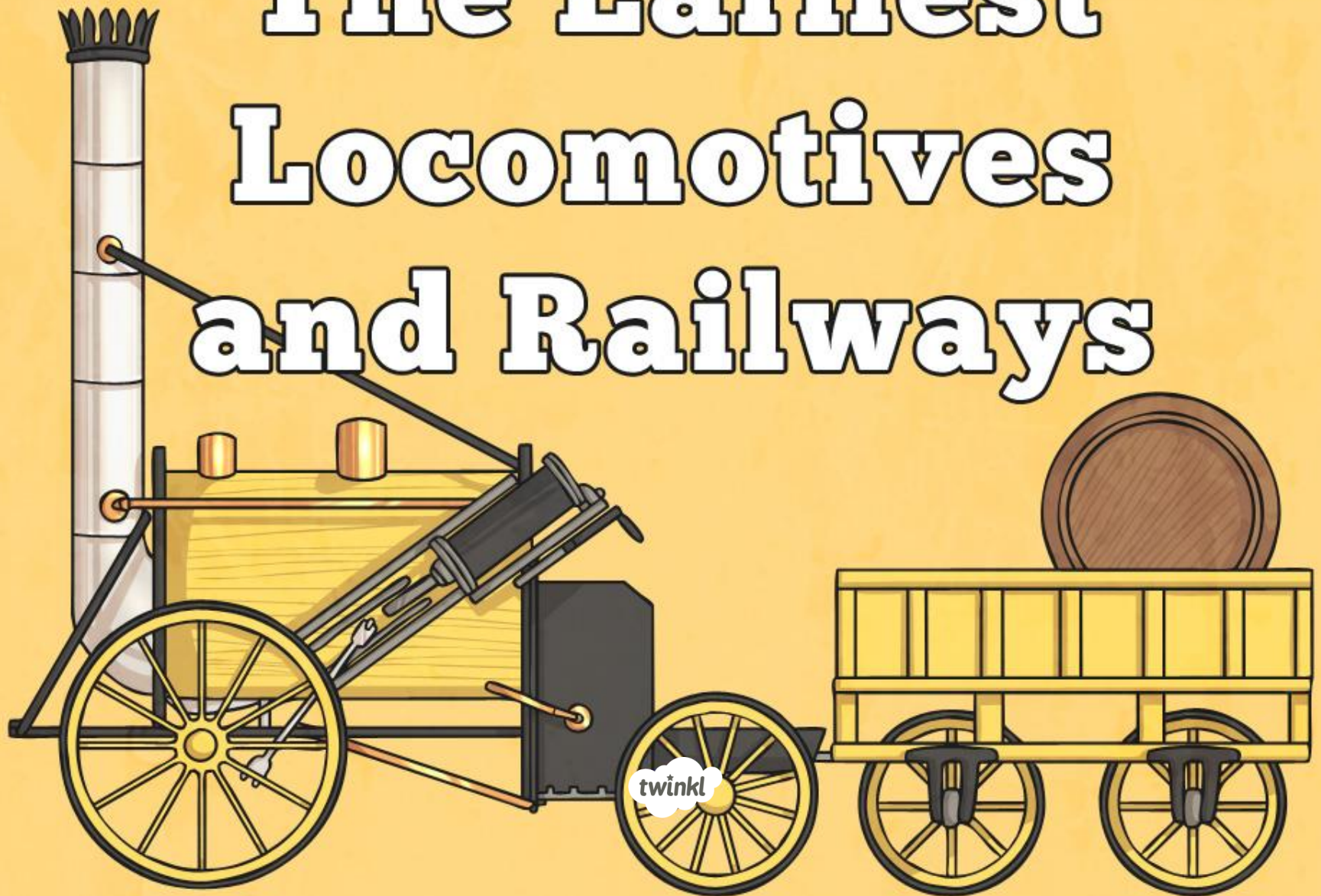


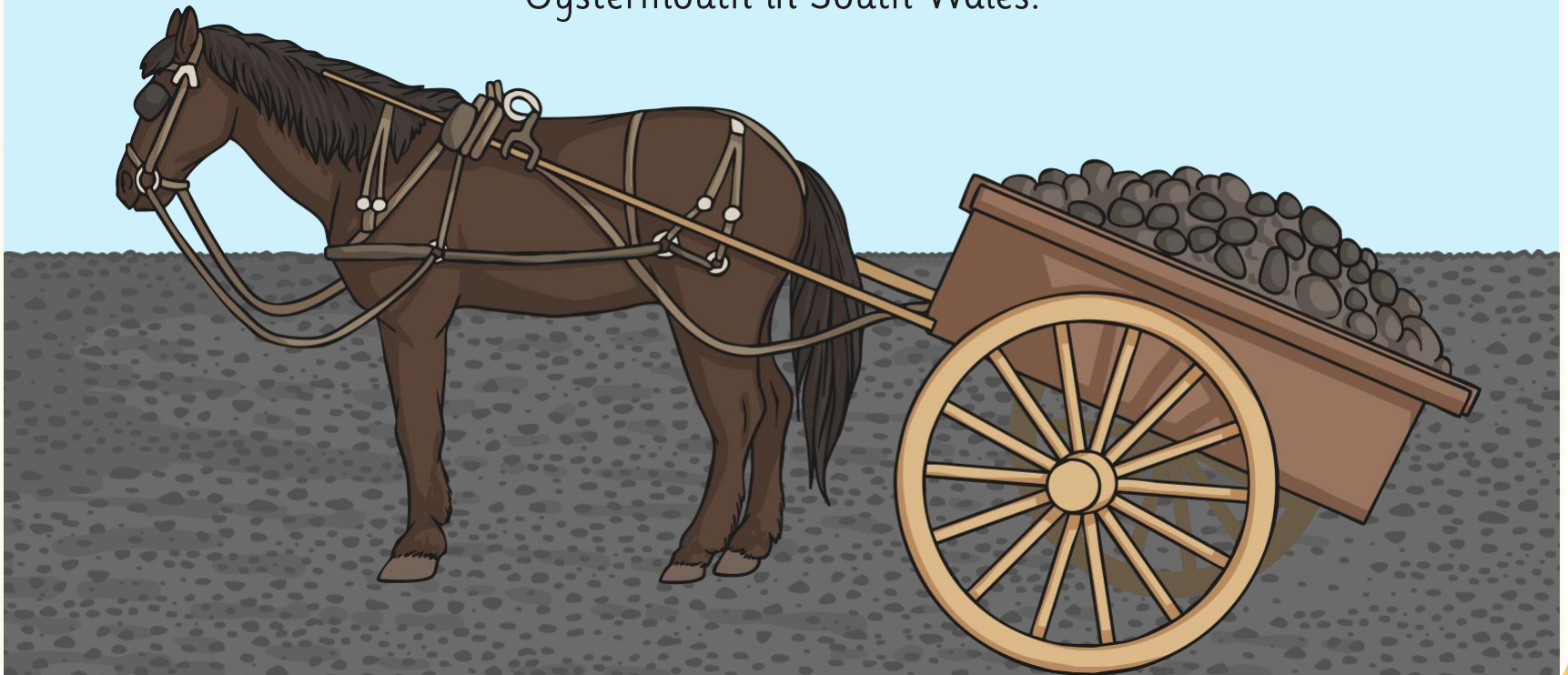
# The Earliest Locomotives and Railways



# The Earliest Railways

The first railroads in Britain were in the 18<sup>th</sup> century coal mines, where horses pulled mine carts from the pits to the factories along wooden tracks.

Later, in 1807, the first railway to carry passengers was opened. It was called the Oystermouth Railway and horses pulled carriages along tracks from Swansea to Oystermouth in South Wales.





# The Earliest Railways

## Thomas Savery

Thomas Savery (1650 – 1715) invented and made one of the first ever steam engines in 1698.

This engine was used to pump water out of the coal mines, but unfortunately it had a number of problems and did not work as well as everyone hoped.

However, this early steam engine design helped other engineers and inventors to develop more successful engines in the future.



# The Earliest Railways

## James Watt

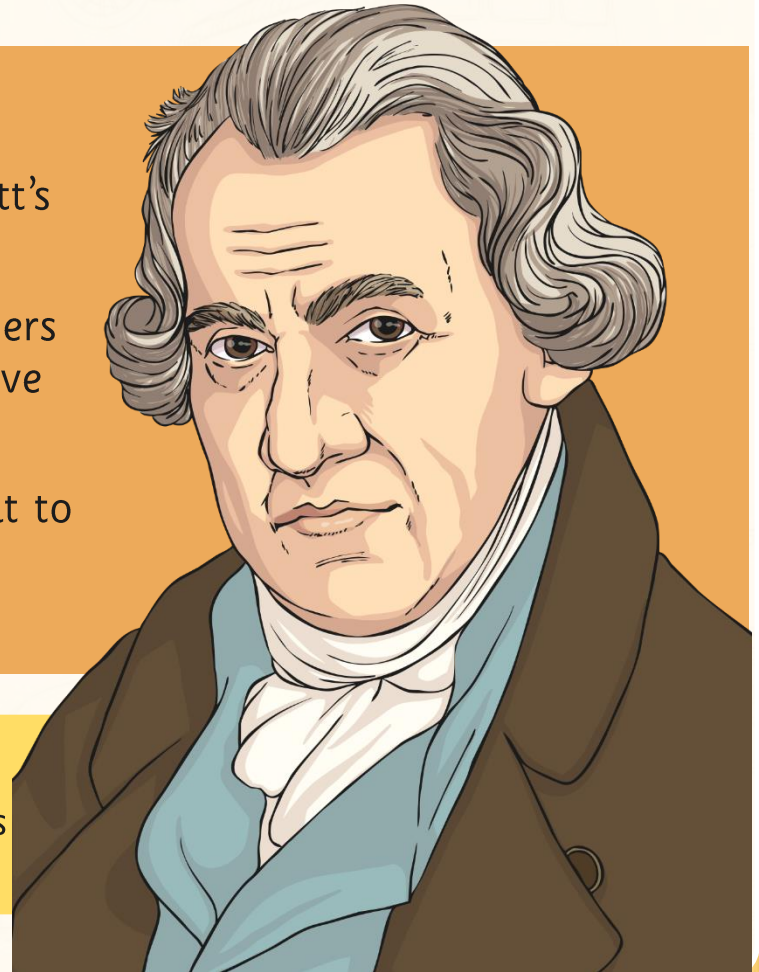
James Watt (1736 – 1819) was a Scottish engineer who worked to improve the earliest steam engines like that of Thomas Savery. Watt's designs and ideas were very successful.

After Watt retired in 1800, many other engineers and inventors continued to work on and improve on this early steam engine design.

The power of the steam engine was soon about to completely change travel and transport in the United Kingdom and around the world.

### **Did you Know?**

The unit of energy 'the watt' was named after James Watt and he invented the term 'horsepower'.



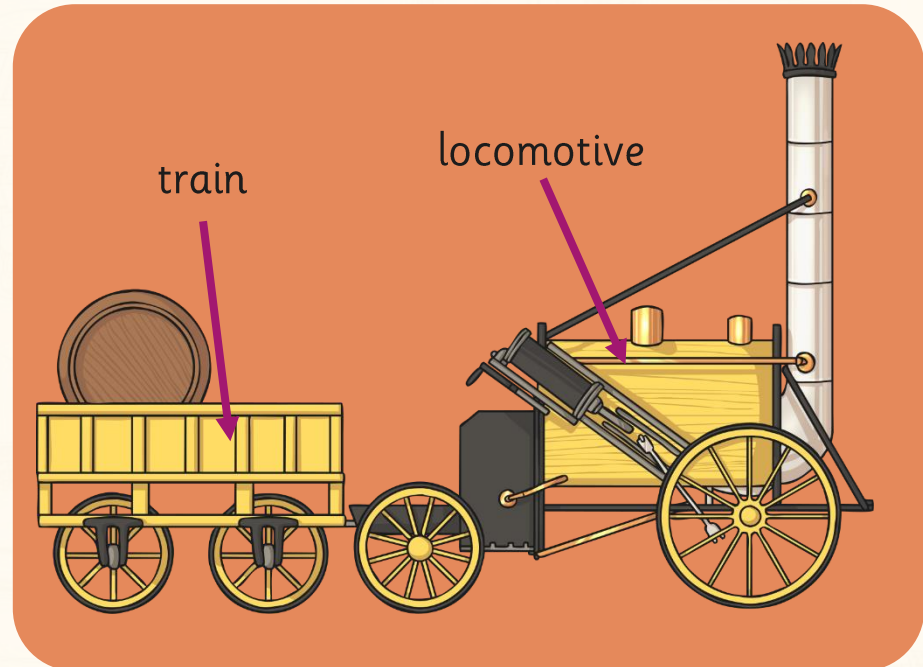
# The First Steam Engine Locomotives



Soon engineers were creating steam engine locomotives using new steam engine technologies which were quickly developing.

The word locomotive means 'moving engine'.

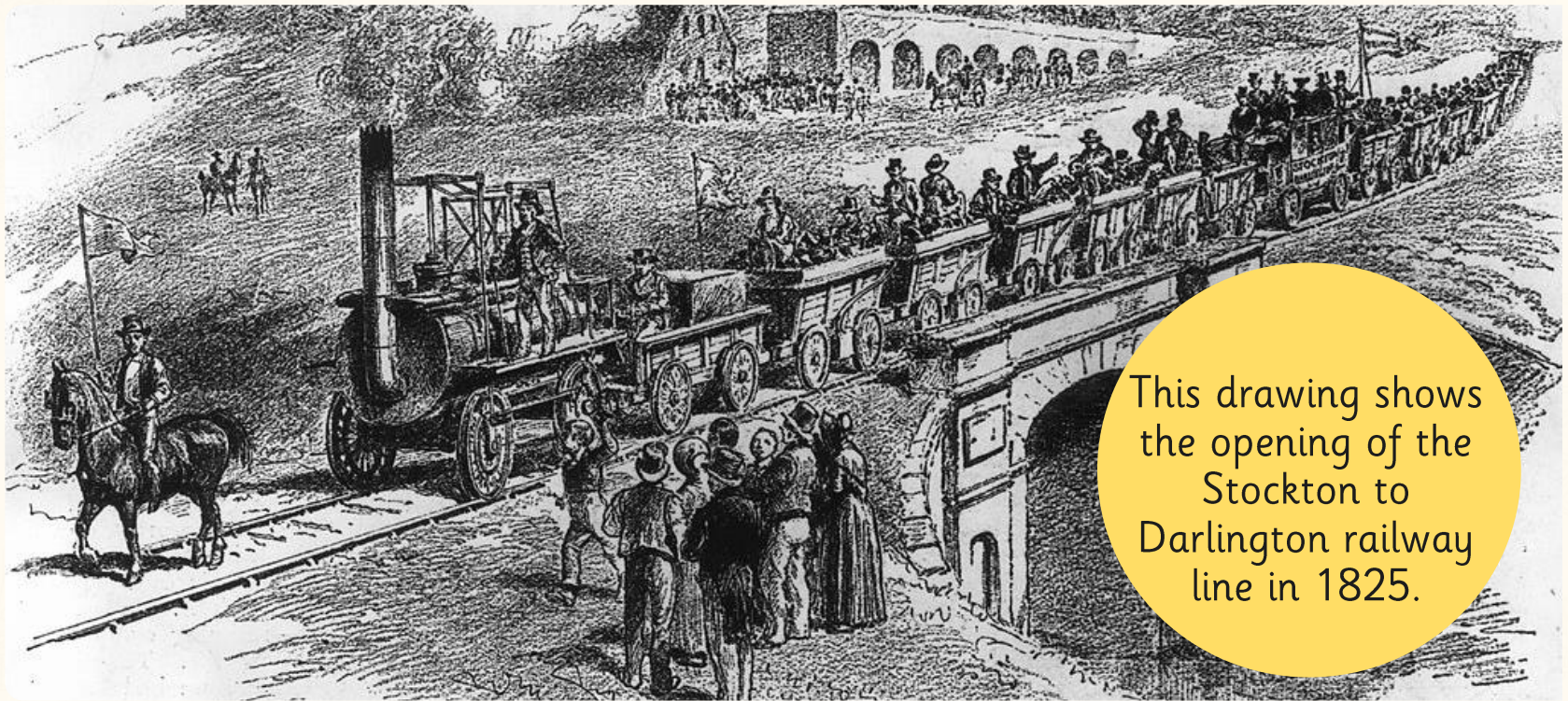
The 'train' is the line of carriages or carts pulled by the locomotive.





# The Stockton to Darlington Railway Line

The first passenger carrying railway line was the Stockton to Darlington line which was built in 1825 by George Stephenson. Stephenson's Locomotion No.1 was the first locomotive to travel on this line.



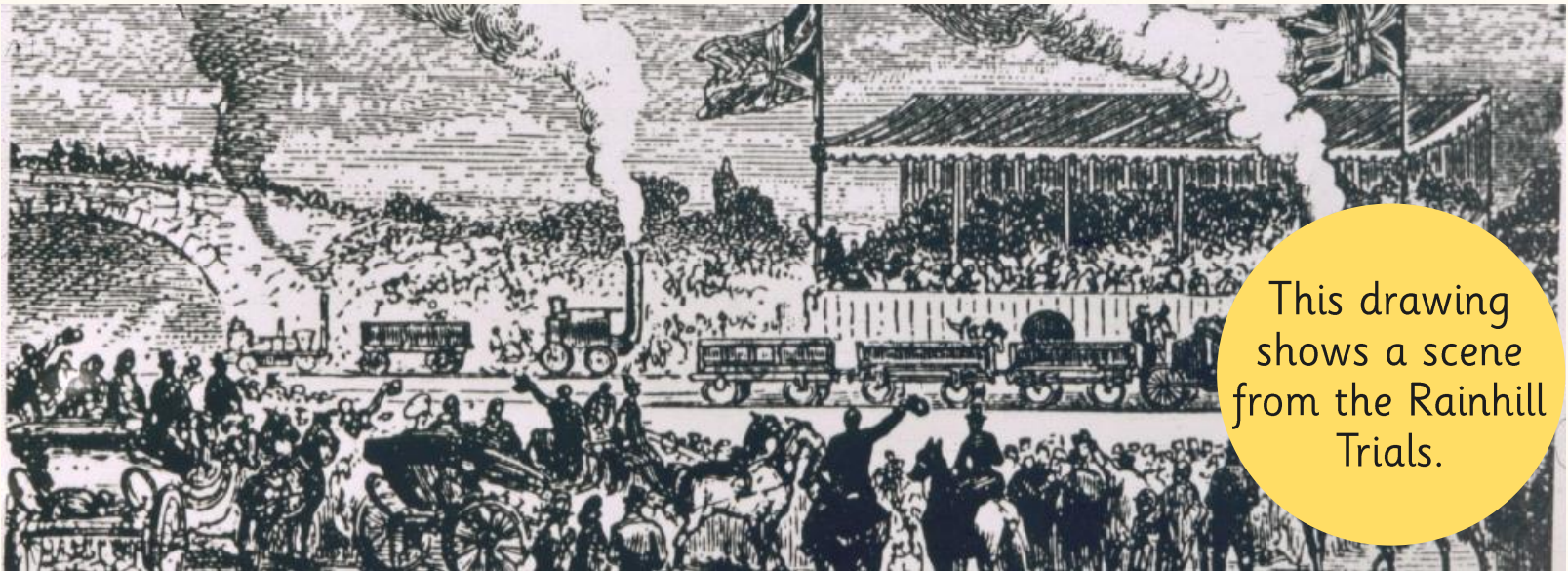
This drawing shows the opening of the Stockton to Darlington railway line in 1825.



# The Liverpool to Manchester Railway Line

George Stephenson also built the Liverpool to Manchester railway line which opened in 1830. His famous locomotive, the Rocket, which had won the Rainhill Trials the year before, was the first to travel on this railway line.

The opening of the Liverpool to Manchester line was a huge success, and soon steam locomotives and railways were running all around the country. You can read all about the Rainhill Trials and visit this [virtual museum](#).



This drawing shows a scene from the Rainhill Trials.

# Railway Timeline



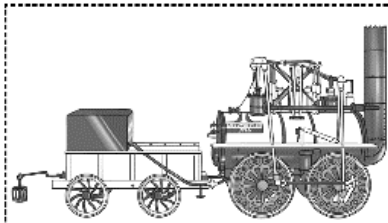
## Activity

Your challenge is to create your own timeline of early railway travel and steam engine locomotives using the information you have learnt in the lesson and your own research.

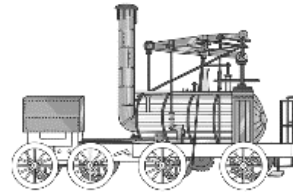


## Earliest Locomotives and Railways

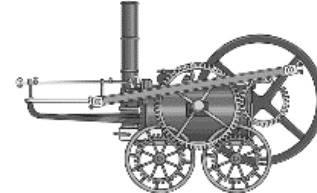
Look at the picture and information cards. Cut out and stick the information cards in chronological order on the timeline.



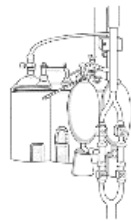
George Stephenson's Locomotion No.1 was the first locomotive to run on a passenger carrying line.



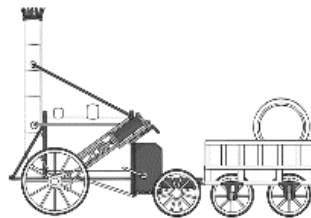
William Hedley's Puffing Billy was used to pull coal wagons. It was a very reliable engine and was in use for over 50 years.



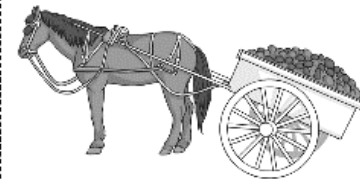
Richard Trevithick's unnamed locomotive carried 10 tons of iron over a distance of 16km at the Pen-y-Darren Ironworks in Wales.



Thomas Savery's steam engine was used to pump water out of the coal mines.



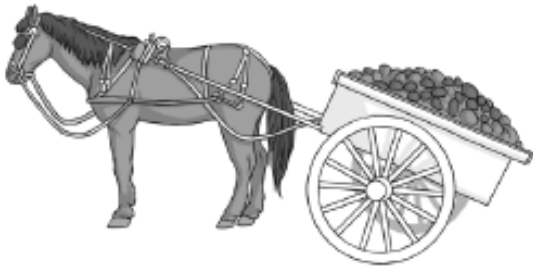
George Stephenson's Rocket was the winner of the Rainhill Trials.



The first railroads were in the coal mines. Horses pulled carts of coal along these tracks.



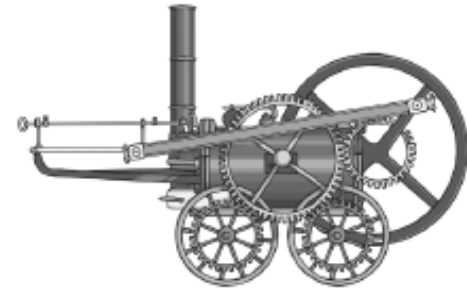
# Railway Timeline Answers



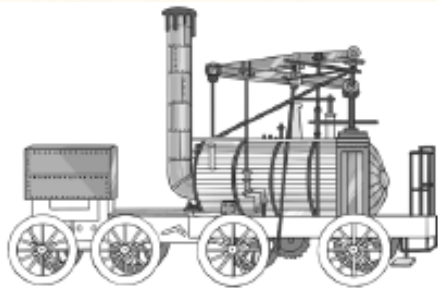
The first railroads were in the coal mines. Horses pulled carts of coal along these tracks.



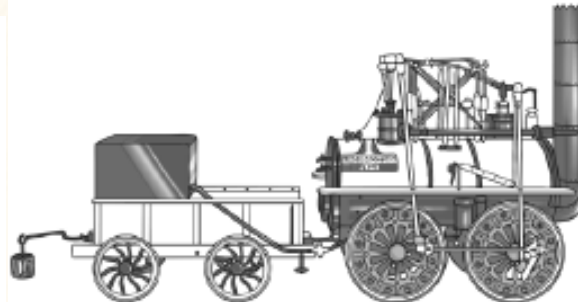
Thomas Savery's steam engine was used to pump water out of the coal mines.



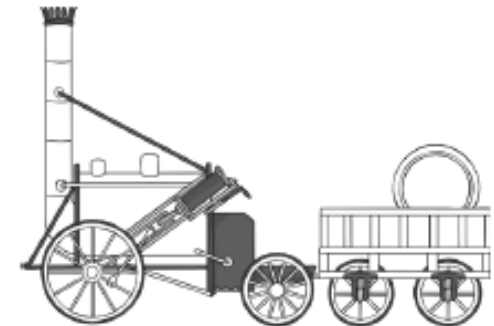
Richard Trevithick's unnamed locomotive carried 10 tons of iron over a distance of 16km at the Pen-y-Darren Ironworks in Wales.



William Hedley's Puffing Billy was used to pull coal wagons. It was a very reliable engine and was in use for over 50 years.



George Stephenson's Locomotion No.1 was the first locomotive to run on a passenger carrying line.



George Stephenson's Rocket was the winner of the Rainhill Trials.

# The Age of the Railways

The opening of the Stockton to Darlington Railway in 1825 marked the beginning of an important time in British history.

The new railways and steam trains completely changed and improved trade and travel around the country.

People today remain fascinated by the majestic steam locomotives introduced in this golden age.

