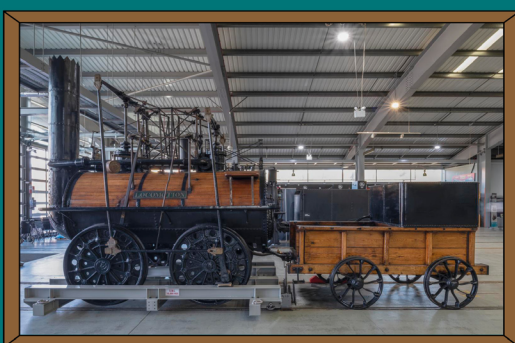
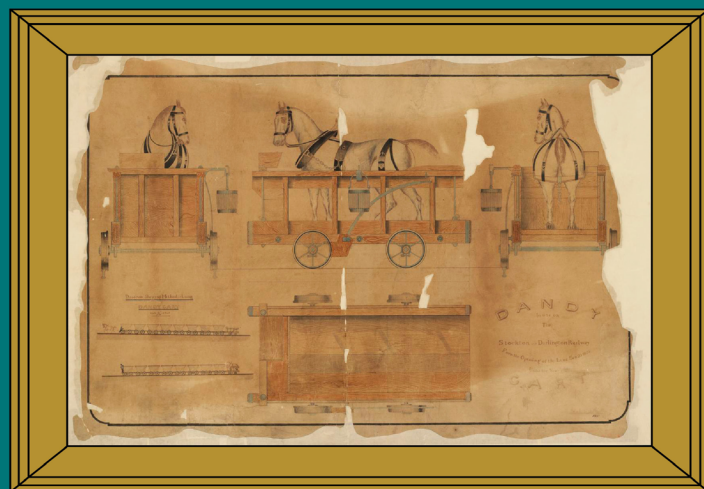
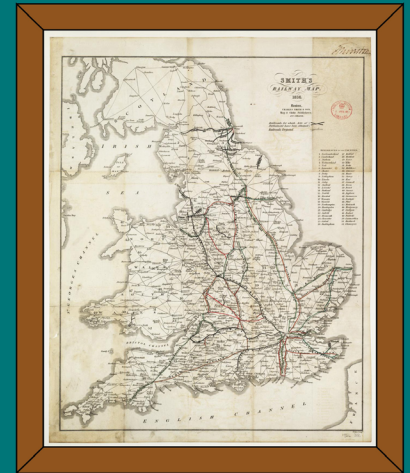
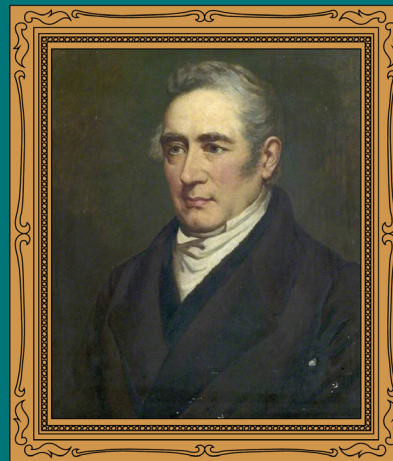


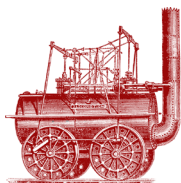


Resource Pack

The Stockton and Darlington Railway

Resource Pack

The Stockton and Darlington Railway



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Stockton &
Darlington Railway**
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Heritage **Action** Zone



Preston Park
Museum & Grounds

LOCOMOTION

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4. Tomlinson, William Weaver (1915). The North Eastern Railway; its rise and development. p. 73.

5. cc-by-nc-sa/4.0 Science Museum Group Collection © The Board of Trustees of the Science Museum

6. John Dobbin, image courtesy of Head of Steam – Darlington Railway Museum

7. cc-by-nc-sa/4.0 Science Museum Group Collection © The Board of Trustees of the Science Museum

8. cc by-nc George Stephenson (1781-1848), unknown artist, photo credit: Chesterfield Museum and Art Gallery

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What is it?

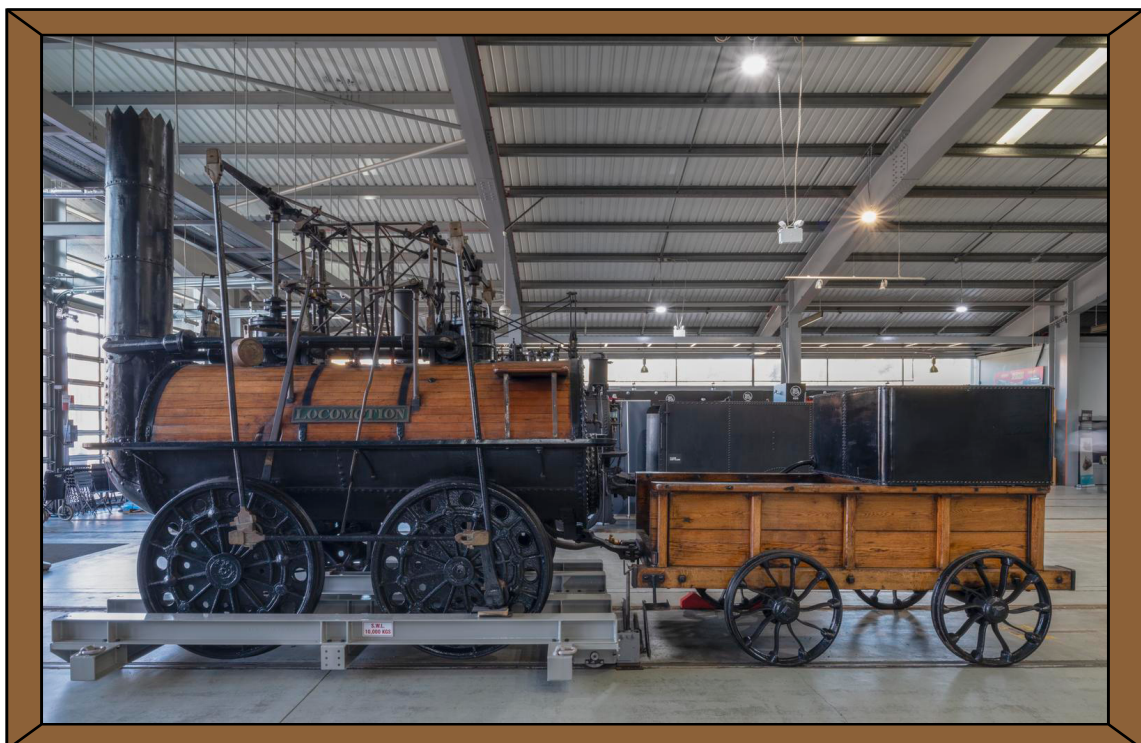
This is a steam locomotive named Locomotion No. 1. It was built by Stephenson's company, Robert Stephenson & Co., in Newcastle. Robert Stephenson himself was abroad between 1824 and 1827.

When was it used?

Locomotion No. 1 was used on the opening day of the Stockton and Darlington Railway (S&DR) on 27th September 1825. Timothy Hackworth rebuilt it several times in the next few years, and it was in use on the S&DR until 1841.

Is this the first ever locomotive?

No, it is not the first ever steam locomotive. However, Locomotion No. 1 is the first steam locomotive to carry passengers on a public railway, which is why it is so famous.





What is this?

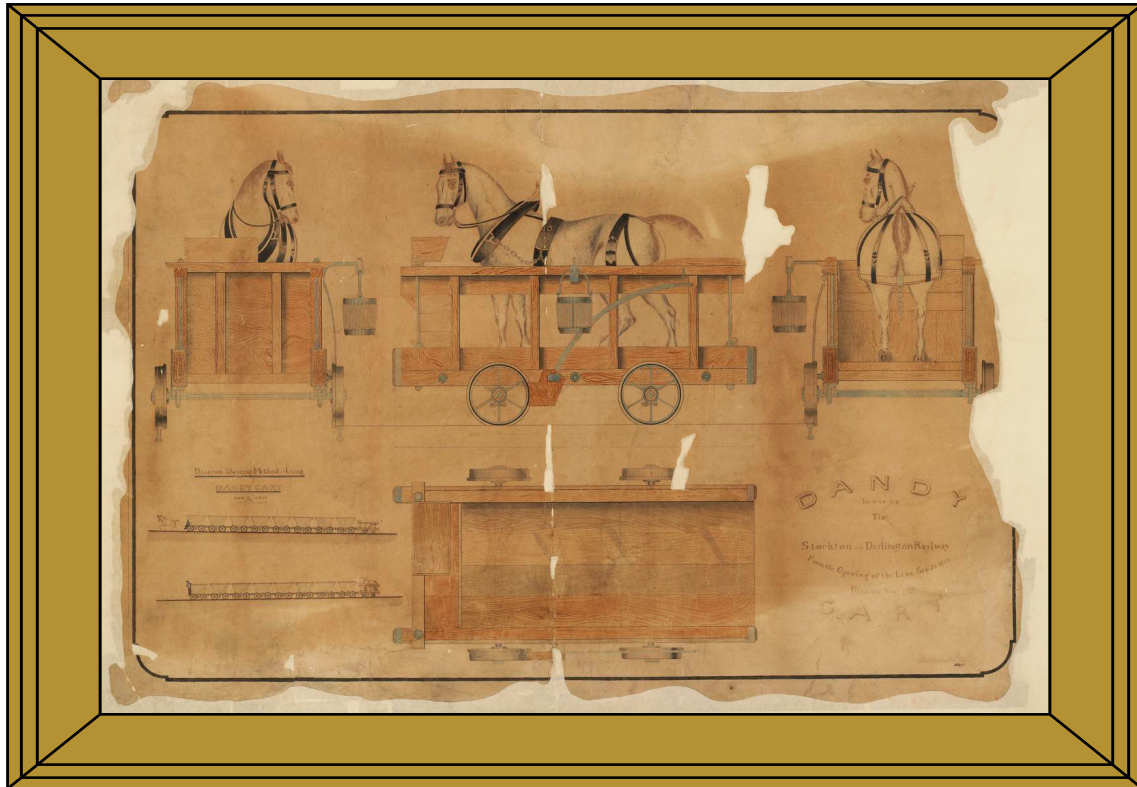
This is called a chaldron waggon or wagon. Waggon / wagon was a regional spelling difference into the 20th century, with 'waggon' used in Scotland and northern England, and 'wagon' used in the Midlands and southern England.

What was it used for?

It was used on the railway to carry coal. The word 'chaldron' is an old term for a measure of coal. This word originated from the North East coal industry.

What do the letters on the side stand for?

The letters S&DR stand for the Stockton and Darlington Railway.



What is this?

This is called a dandy cart.

What were they used for?

Until 1833, horses were still used on parts of the S&DR. A dandy cart was used to carry horses along parts of the railway where it was running downhill, and so didn't need the horses to pull the train. This meant that the horses could rest, eat and were less likely to go lame.

Who introduced dandy carts?

It is thought that George Stephenson suggested the idea and introduced them in 1828.

What is this?

A seal is a bit like a stamp that can be used to transfer a design to paper, wax or clay. This is the seal of the Stockton and Darlington Railway Company, which was formed in 1821. It would have been used to validate important documents, or to mark a wax seal on an envelope which, when unbroken, showed that the letter had not been tampered with.

What do the Latin words mean?

The words across the top of the seal are in an ancient language called Latin, that was often used for mottos. This motto translates to 'At private risk for public good'.

What do you notice about the design on the seal?

The seal shows a colliery up in the hills, and a horse pulling waggons of coal. The seal was designed in 1821, at which point it had not yet been decided that the railway could run with steam locomotives.



What is this?

This is a letter from John Backhouse, a 14-year-old boy who was present at the opening day of the S&DR. He sent the letter to his sisters in London. At the top of the letter John drew a pencil sketch of the train.

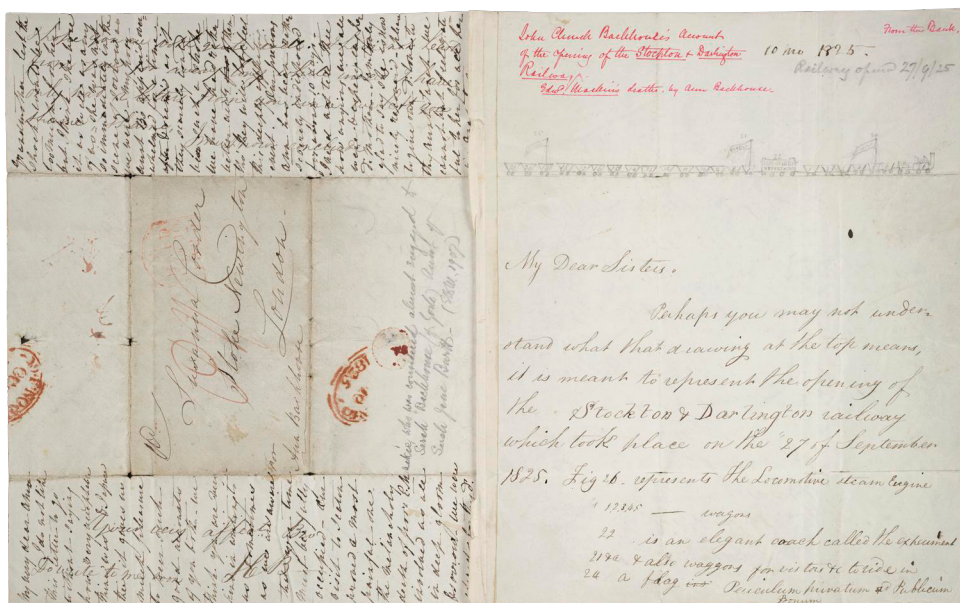
What does it say?

“My dear Sisters, Perhaps you may not understand what that drawing at the top means, it is meant to represent the opening of the Stockton & Darlington Railway which took place on the 27th September 1825.”

John then explains what the numbers in his drawing represent.

Why do you think John wrote this letter?

This was the first time anywhere in the world that a steam locomotive had pulled passengers on a public railway. Many people gathered near the railway to watch the first journey and there was a lot of excitement and interest.





Who painted this picture?

This picture is called 'The Opening of the Stockton and Darlington Railway, 1825' and was painted by John Dobbin in 1874. John lived in Darlington as a child and he was present at the opening in 1825 when he was ten years old. He painted this picture about 50 years later, using his memories of the day and perhaps sketches made by his father.

What do you notice in the picture?

Locomotion No. 1 is pulling passengers and waggons of goods across the bridge. A huge crowd of people have gathered to watch the occasion and the view is focused on the crowd.

Where is this?

The train is crossing over Skerne Bridge in Darlington, which was built in 1825 specially for the S&DR. It is still in use today with trains passing over the River Skerne. This makes it the oldest railway bridge in the world in continuous use.



What are these objects?

On the left is an oil can that was used in about 1840. On the right is a steel handheld punch that was used for punching letters into leather.

What do the two objects have in common?

Both objects have the letters S&DR representing the Stockton and Darlington Railway. The leather punch has S&DR Co., where the Co stands for Company.

Why was branding important?

Having 'branded' objects not only ensured that everyone knew who the items belonged to, but also helped to build a strong identity for the company and helped everyone who saw the name to become more familiar with the S&DR.

Who is this?

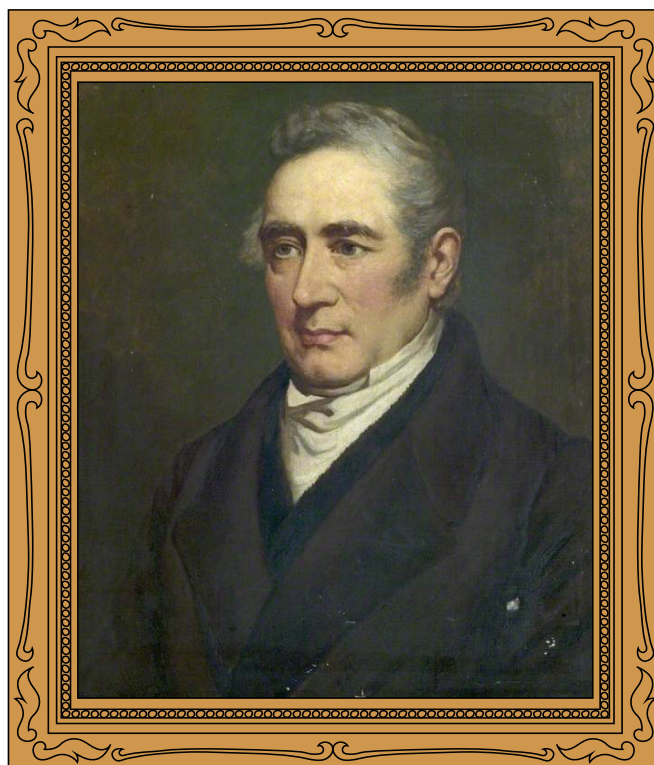
This is George Stephenson, who was born in Wylam in Northumberland in 1781 and lived until 1848.

What was George's early life like?

George couldn't go to school because his parents couldn't afford it. This meant that he wasn't able to learn how to read and write as a child. He realised that he would need to be able to do these things to get on in life, so at the age of 18 he went to night school to learn.

Why was his contribution important?

George became a talented engineer and an expert in steam-driven machinery. His name was already well-known when he first met Edward Pease, and Pease appointed Stephenson as surveyor to the S&DR in 1822 and later as its Chief Engineer. The S&DR and other routes that George surveyed and structures that he designed are still in use today. The gauge (distance between two rails on a railway track) that Stephenson used was adopted all round the world.





Who is this?

This is Edward Pease, who is sometimes known as ‘the father of the railways’. He was born in Darlington in 1767 and died in 1858.

What was his contribution to the S&DR?

Although there were other funders as well, Edward was one of the railway’s financial backers, which means that he used a lot of his personal money to make sure that it went ahead successfully. This also meant that he influenced important decisions. Without Edward, the vision of a permanent railway network across the country may not have developed as it did. He was willing to listen to others, take risks and try something new, like listening to George Stephenson’s suggestion of using locomotives rather than horses on the railway.

Was his family involved?

Yes, Edward’s sons Joseph and Henry were involved in some of the decisions about the railway. Joseph Pease managed the railway from 1829. In 1832 he became a Member of Parliament.

What is this?

This is 'Smith's Railway Map' by Charles Smith & Son. It was printed and then hand coloured.

When was it published?

The railway map was published in 1836, 11 years after the opening of the Stockton and Darlington Railway.

What can we learn from this map?

This map shows that even quite a short time after the opening of the S&DR, a network of railway lines had started to spread all over the country. The S&DR had proved that railways were popular, useful and could be financially successful.



Suggested Activities

Write a letter

Have a look at John Backhouse's letter. Imagine you have been present at a world first event; perhaps an opening of a new type of transport. Write a letter to a family member describing the scene for them. Perhaps include a labelled sketch.

Design a seal

Focusing on your school or another group, design your own seal. Think about a design that will best represent what it does and what it is like. Use an existing motto or plan a new one!

Plan a route

Look at an Ordnance Survey map or another map that shows natural features. Imagine that you need to plan a railway route between two points, a bit like George Stephenson surveyed the land to plan a suitable route for the railway. Examine the natural features of the land - would your route need to cross rivers, avoid obstacles such as mountains, or call in at important locations?

Read a transport timetable

When the railways were first invented, no-one had designed a timetable before, but soon they were needed. Look at a paper timetable or online timetable that shows the times of local buses or trains. How do you find out where the bus or train goes and where it stops? What do you notice about the times? Can you work out how long a journey would take you?

Engineering challenge

Use everyday objects, recycled materials or construction toys to build a bridge that can support weight. How will you test your design? Can you add weight gradually to discover its limit?



