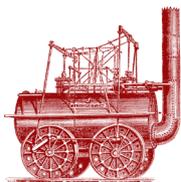


# Resource Pack

# Timothy Hackworth

# Resource Pack

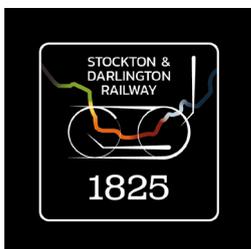
# Timothy Hackworth



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Heritage **Action** Zone



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# LOCOMOTION

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

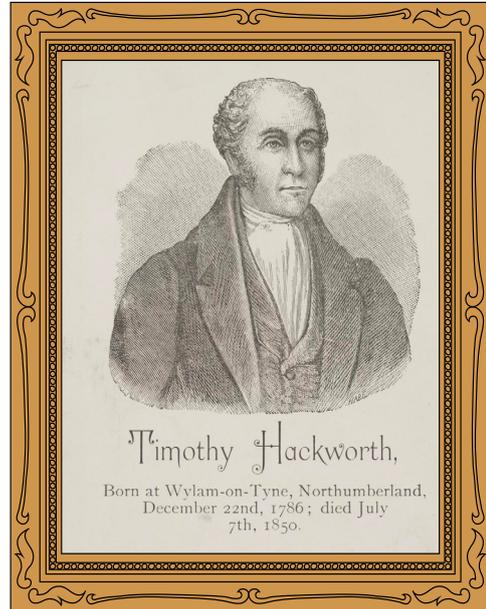
2. cc-by-nc-sa/4.0 Science Museum Group Collection © The Board of Trustees of the Science Museum

3. cc-by-sa/2.0 - © Jo and Steve Turner

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

5. From The Engineer, 10 October 1879; public domain

6. From The Mechanics Magazine 1829; public domain



## Who is this?

This is Timothy Hackworth, who was the first locomotive engineer and superintendent of the Stockton and Darlington Railway (S&DR) from 1825 to 1840.

## When and where did he live?

He was born in Wylam in 1786, and died in 1850. Whilst he was working on the S&DR he lived in Shildon.

## Why is he famous?

Timothy researched, designed, repaired and built locomotives which kept the S&DR running, at a time when not many others had the knowledge or skills to do a brand new job like his. He was the perfect person for the job - he had been trained in locomotive building at Wylam by Thomas Waters, had worked at collieries at Wylam and Walbottle (a colliery is a coal mine and its structures), and had been loaned to Forth Street Locomotive Works in 1824, ensuring it ran successfully whilst George and Robert Stephenson were away. Later he shared his knowledge of railways with others from around the world.

## What is this?

This is Timothy Hackworth's business card. He would have kept several in his pocket to give out to people who were interested in his work. The text says: "Timothy Hackworth. Manufacturer of Locomotive, Marine, High Pressure and other Steam Engines, Mills & C. On the most approved plans. New Shildon, near Bishop Auckland, Durham."

## What do you notice in the picture?

There is a locomotive engine hauling a tender in the countryside, with houses and a church in the distance.

## When did Timothy use this business card?

This was used in about 1839.





## Where is this?

These buildings are both in Shildon in County Durham, north east England. The first is Timothy Hackworth's house and the second is Kilburns' Warehouse, the oldest building in Shildon.

## What was the warehouse used for?

Like many old buildings it has been used for different things over time. When first built in 1826 by a company called Kilburn's of Bishop Auckland, it stored iron work such as nails, hinges and locks which could be moved by the new railway. It is the earliest purpose built railway warehouse in the world. For a while Timothy used it as part of his Soho Works where he built steam locomotives. Timothy put his brother Thomas in charge of the Works. After that it was used to paint steam engines and even became a place for the local brass band to practise!

## Did anyone else live in the house?

Yes, Timothy had a wife called Jane, three sons and six daughters.

## What is this?

This is a letter from George Stephenson to Timothy Hackworth. George and Timothy worked together closely on the S&DR. The paper and handwriting is very old.

## What is the letter about?

The letter asks Timothy what he thinks of a new engine, asks for his ideas about improvements, and asks how many miles a week the new engine would travel.

## What do you notice about the way the letter opens and closes?

The letter is addressed to “Dear Timothy” and is signed off “I am dear Sir yours truly, Geo Stephenson”.

## How did people communicate with each other in the 1820s and 1830s?

They either spoke to each other face to face or they wrote letters. Telephones, mobile phones and computers hadn't been invented yet!



## What is this?

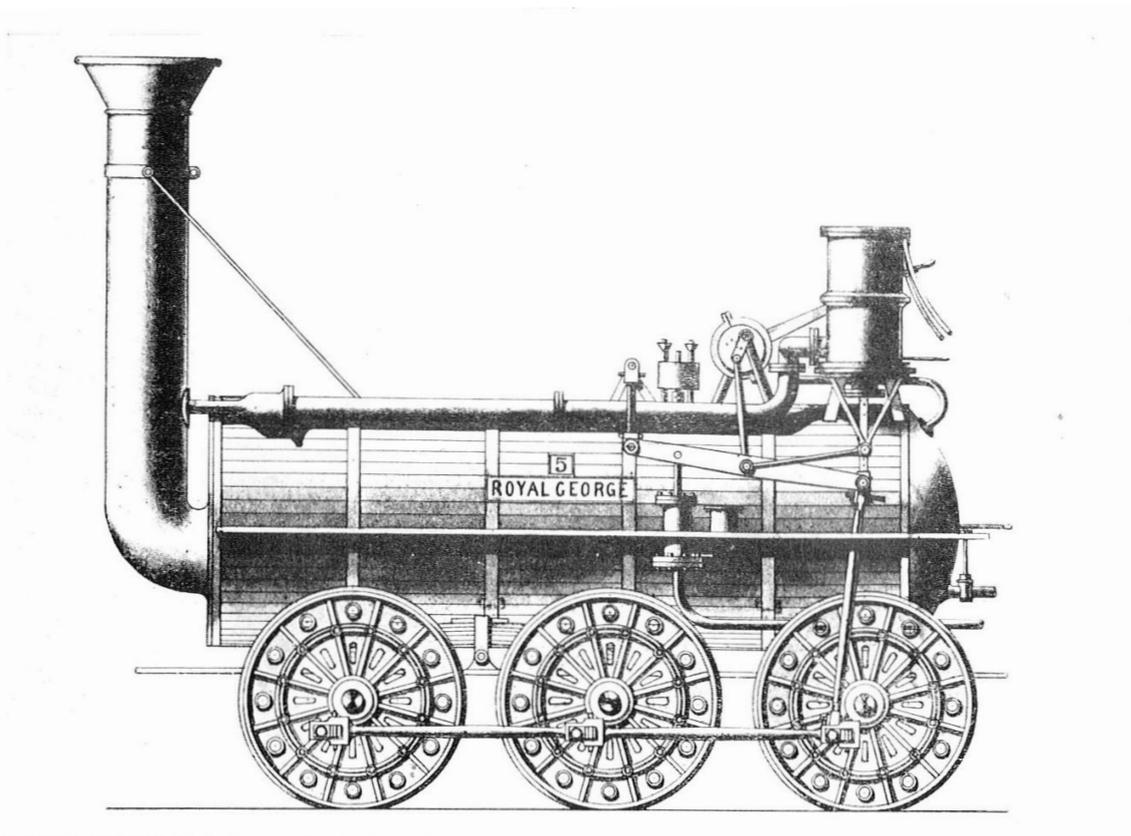
This is the Royal George, a steam locomotive designed and built by Timothy Hackworth.

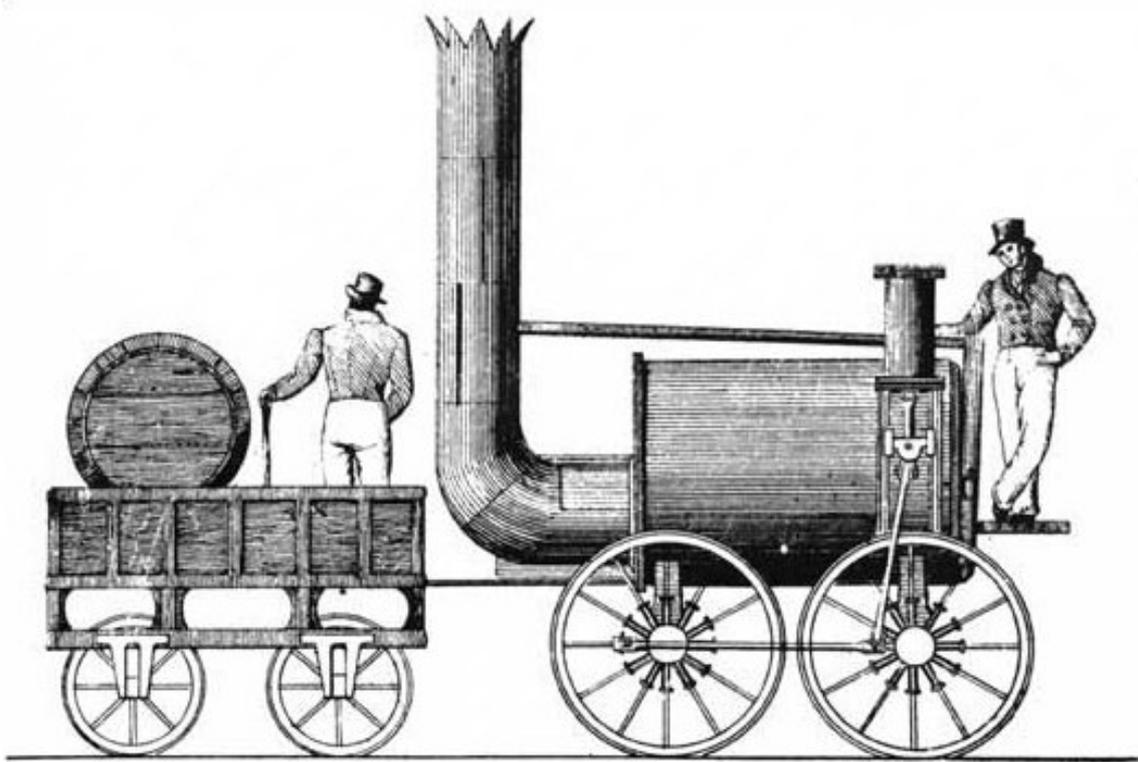
## When was it built?

This locomotive was built in 1827 and was used on the Stockton and Darlington Railway.

## What is special about it?

The Royal George is the first locomotive that was reliable for everyday use. It had several new features developed by Timothy. One of these was the blastpipe. The Stephensons later used this type of blastpipe for Rocket and other new locomotives.





### **What is this?**

This is the Sans Pareil, a steam locomotive built by Timothy Hackworth.

### **When was it used?**

This locomotive took part in a competition in 1829 called the Rainhill Trials. George Stephenson's Rocket won the prize, but the organisers decided to buy both locomotives (Sans Pareil and Rocket) afterwards.

### **Why is this important?**

The Rainhill trials were important because many changes and improvements were made to the locomotives, and this convinced the directors of the new Liverpool and Manchester route to use them on their railway.

# Suggested Activities

## Design your own business card

Imagine a job you might like to do in the future, or one you might have done in the past on the railway. Design your own business card, including your name, the type of work you do, and pictures of things that are important to you.

## Make a fact file

Create a fact-file on Timothy Hackworth. What have you learnt about his life and work? Why do you think Timothy was sometimes called the unsung hero of the railway?

## Write a letter

Have a look at the letter George sent to Timothy. Can you write a formal letter, addressing it and signing off correctly? You could write in character as Timothy, describing where you live and work.

## Plan a journey

Find the departure and arrival times of a train journey local to you. Can you work out how long the journey should take? Does the journey always take the same length of time, or is it sometimes longer or shorter?

## Engineering challenge

Use everyday objects, recycled materials or construction toys to build a miniature vehicle that can carry something a short distance. Will you create a slope to help you? What is the best surface? How will you test your design?

