

Bank of England Museum

£5 Series E note featuring George Stephenson



Information about this banknote

This banknote was in circulation between 1993 and 2003. It was designed by Roger Withington and the Bank of England design team.

George Stephenson was a pioneering railway engineer and inventor of the 'Rocket', a famous early railway steam engine. He was born on 9 June 1781 near Newcastle-upon-Tyne and worked alongside his father in coalmines across Scotland and the North East of England.

In 1814, Stephenson designed and built his first engine. It was called 'Blucher', and was used to transport coal at Killingworth Colliery near Newcastle. In 1815, he also invented a safety lamp (which went out if harmful gases were present) for use in coalmines. It was nicknamed the 'Geordie' lamp.

In 1821, Stephenson became an engineer on the Stockton and Darlington railway, and the railway between Liverpool and Manchester. In October 1829, the owners of the Liverpool and Manchester Railway staged a competition at Rainhill to find the best kind of engine to pull heavy loads over long distances. There were thousands of spectators and Stephenson's locomotive 'Rocket' won. It was capable of travelling up to 36 miles per hour.

The opening of the Stockton to Darlington railway, combined with the success of 'Rocket', resulted in the construction of railway lines and steam engines countrywide. Stephenson was an engineer on many of these projects and also advised on the development of Spanish and Belgian railways.

Stephenson died on 12 August 1848. He is buried at Holy Trinity Church in Chesterfield.¹ He was chosen to appear on a banknote due to his work and ideas having strongly influenced Britain's steam and rail industries, and revolutionising transportation methods all across the country in the process.

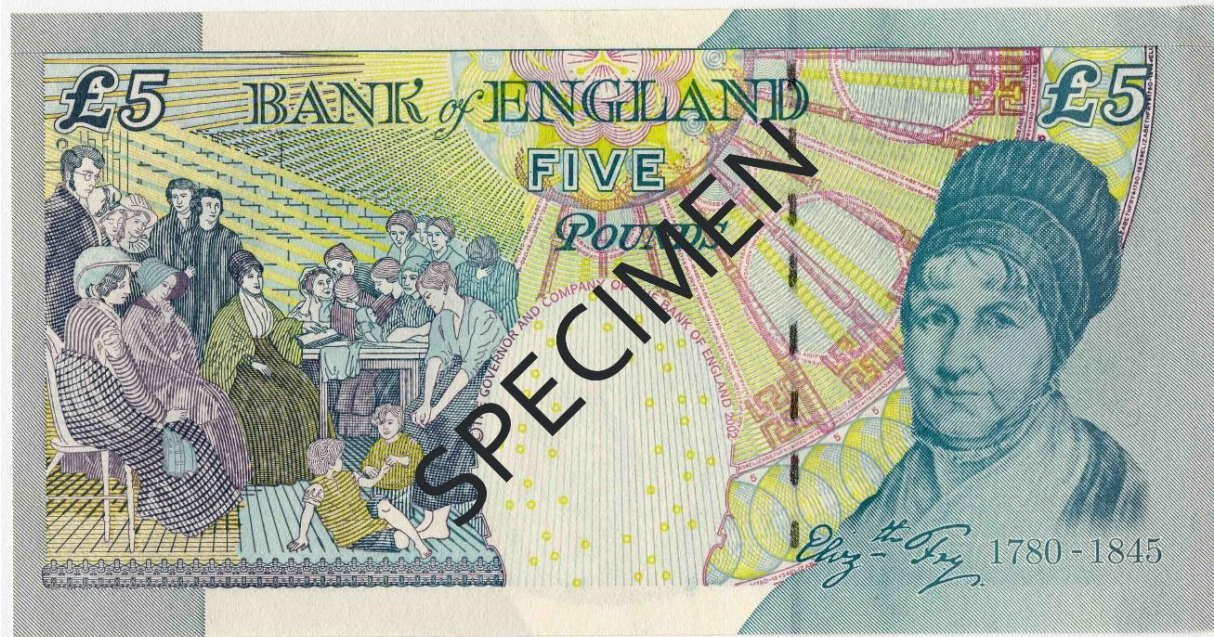
Design features on this banknote include:

- An image of Stephenson's 'Rocket' locomotive, with a plume of smoke drifting up behind the 'Bank of England' text;
- A pattern made up of engineer's calipers (to the right of the Queen's portrait). Calipers are used by engineers to measure dimensions.
- Skerne Bridge (part of the Stockton and Darlington Railway);
- Train wheels and railway arches, which can be seen on the front of the note (at the bottom);
- A person on horseback in front of a locomotive. These people used to alert pedestrians near the tracks that a train was coming. It could also be a reference to the Stephenson gauge. This was the distance between the two rails (placed 4ft and 8 1/2 inches apart), based on the widths of horse-drawn carriages for which early railways had been built.

¹ [BBC - History - Historic Figures: George Stephenson \(1781-1848\)](#)

Bank of England Museum

£5 Series E Variant note featuring Elizabeth Fry



Information about this banknote

This banknote was in circulation between 2002 and 2017. It was designed by Andrew Ward and Debbie Marriott.

Elizabeth Fry (1780-1845) was a Quaker prison reformer, social reformer and philanthropist.

When Fry visited Newgate Prison in 1813, she was inspired to improve the conditions and the potential of the women and their children (who were often imprisoned with their mothers). Fry worked to improve conditions for the women she saw in prisons. Education was a key part of this.

Fry taught the women skills, such as knitting and needlework, so that they could support themselves honestly after they were released. She also set up schools for children who were in prison with their mothers, and worked alongside her brother, John Gurney, to abolish capital punishment (sentencing people to death by hanging).

She also set up night shelters for the homeless, supported the abolition of slavery, and opened a school for nurses.

Fry died in 1845 and was buried in the Friends Burial Ground in Essex.

Design features on this banknote include:

- Elizabeth Fry's portrait is based on an engraving by Mary Martha Pearson (1798-1871).
- To the left of Fry's portrait, you can see women who are dressed differently to the women prisoners on the right. They are members of Fry's 'ladies' committees'. They would also visit prisons and supported her efforts for prison reform. The prison scene on the banknote was inspired by a painting from 1860 by Jerry Barrett titled 'Mrs Fry Reading to the Prisoners in Newgate in the year 1816'.
- There are also lots of references to keys on this note, perhaps in reference to the prisons that Fry visited (or that she helped unlock the potential of the women and children housed there). Fry was also awarded a key to Newgate prison in recognition of her work there. These can be seen in the geometric patterns on the side with the Queen's portrait, and behind Elizabeth Fry's portrait. There are also tiny scissors and cotton reels to the right of the Queen's portrait – a reference to the needlework taught to the prisoners.

Bank of England Museum

£10 Series D note featuring Florence Nightingale



Information about this banknote

The banknote was designed by Harry Ecclestone and the Bank of England's design team. It was also the first banknote to feature an historic woman.

Florence Nightingale appeared on the £10 note between 1975 and 1994. Nightingale is famous for her treatment of wounded soldiers in the Crimean War (1853-1856), and is known as the founder of modern nursing. She was born in Florence in Italy 1820, and although girls were taught the same things as boys in the Victorian times, her father made sure that she was well educated in many subjects including maths and science.

During the Crimean War, Nightingale brought 38 nurses to Scutari hospital (in modern Istanbul, Turkey) to treat soldiers who had been wounded in battle.

Nightingale was appalled by the hospital conditions. More patients were dying of diseases than their battlefield injuries. She improved hygiene and nursing standards and raised funds to buy medical supplies and equipment. In 1883, she was one of the first people to be awarded the Military Red Cross for her nursing services during the war.²

After her return to Britain, Nightingale became a powerful social reformer. She used both her personal influence and statistical investigations to drive change and improve hygiene in hospitals.³ She was also credited with designing the pie chart (one of the ways data can be visually represented in segments).⁴

Florence Nightingale died in 1810, aged 90. Her family turned down the offer of a state funeral and burial in Westminster Abbey. Instead, a memorial service was held in St. Paul's Cathedral in London. She is buried in St. Margaret's church in East Wellow (Hampshire).

Design features on this banknote include:

- In the background detail on the note, you can see Nightingale with a lamp and five other nurses who are looking after patients. She was often called 'the lady with the lamp' as she would carry one with her during hospital night-rounds.
- Nightingale was also a keen horticulturalist and had an extensive collection of pressed flowers. This is acknowledged by the image of the lilies on the front of the note, which was inspired by an original sketch drawn by Nightingale's sister, Parthenope.
- The master drawing for Nightingale's banknote portrait is based on two photographs that were taken shortly after her return to Britain in 1856.⁵

² [About the Royal Red Cross - UK Parliament](#)

³ [Smartify | Historical Women on Banknotes](#)

⁴ [Newswise | Was Florence Nightingale Mentally Ill?](#)

⁵ [Smartify | Historical Women on Banknotes](#)

Bank of England Museum

£10 Series E note featuring Charles Dickens



Information about this banknote

This banknote was in circulation between 1993 and 2003. It was designed by Roger Withington and members of the Bank of England's design team.

Charles Dickens was an author and social campaigner. He was born on 7 February 1812 in Portsmouth, Hampshire.⁶ Dickens attended school from the age of nine, but in 1824, his father (along with the rest of Charles' family) was imprisoned at Marshalsea (South London) for not paying his debts.⁷ Charles was sent to work in Warren's blacking factory and had to endure gruelling working conditions for three years. His job was to paste labels on the bottles of blacking (which was used as shoe polish). During this time, he earned 24 shillings a month (which would be worth around £168 today⁸). The harsh reality of children working in factories deeply influenced Dickens' writing in later years and he eventually returned to school aged 15.

Dickens began his literary career as a journalist. In 1836, he published 'Pickwick Papers', a series of stories about four Englishmen who travel around the country, observing local people and what they got up to. The stories were very popular and ultimately launched his career as an author. Dickens was also a keen walker: he reportedly travelled up to 20 miles in a day collecting anecdotes from London life to use in his writing.

Other popular works by Dickens include 'Oliver Twist' (which highlights the poor working conditions of factories for children), and 'A Christmas Carol' (which emphasises the importance of kindness, compassion and generosity). Both of these stories were later adapted into films and remain popular stories in Britain today.

In 1870, Dickens died of a stroke at his country home in Kent. He is buried in Westminster Abbey.

Design features on this banknote include:

- On the front of the note, some of the author's works are visible in tiny writing close to the 'Bank of England' text.
- The reverse artwork on the banknote depicts a portrait of the artist, and a scene depicting a cricket match from 'The Pickwick Papers' (based on an illustrated print by Robert W. Buss)⁹.
- Books and pen nibs are also visible to the left of Dickens' portrait, and to the right of the Queen's portrait.

⁶ http://www.bbc.co.uk/history/historic_figures/dickens_charles.shtml

⁷ <https://www.bl.uk/collection-items/engraving-of-the-marshall-sea-prison-where-dickenss-father-was-imprisoned#>

⁸ <https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator>

⁹ "The Cricket Match" — illustration for "Pickwick Papers" by R. W. Buss (victorianweb.org)

Bank of England Museum

£10 Series V note featuring Charles Darwin



Information about this banknote

This banknote was in circulation from 2000 to 2018. It was designed by the Bank of England's banknote design team.

Charles Darwin (1809 – 1882) was a scientist who explored the theory of evolution and natural selection. His work highlighted the importance of understanding organisms, and how and why they adapt and evolve over time.

He was born in Shrewsbury and spent much of his time exploring the natural world as he grew up. He initially enrolled to study medicine at the University of Edinburgh, but found that he could not complete the course as he was left traumatised by surgeries (which were performed without anaesthetic and often proved fatal).¹⁰ After university, he travelled across the globe on *HMS Beagle*. The voyage lasted almost five years, but he spent most of his time on land studying the native flora and fauna (plants and animals found in certain places).

During his time abroad, Darwin collected fossils, and studied rock formations. All of this work helped him to establish how similar species of animals had adapted to suit their environments. He documented his findings meticulously in notebooks, which would later be used for his best-known work, *On the Origin of Species*. Darwin had finalised his theory of natural selection (this theory is also known as 'survival of the fittest', where plants and animals which are better suited to their environments are more likely to reproduce and pass those traits onto their offspring) by 1844, but he was reticent to share his findings because he knew they would be extremely controversial (as they openly contradicted the Bible and its account of creation).

In 1858, with Darwin still reluctant to publish his theories, Alfred Russel Wallace (another British naturalist), published a paper which contained similar research, effectively summarising Darwin's work. This led to Darwin and Wallace delivering a joint lecture on evolution at the Linnean Society in London in July 1858. Subsequently, he prepared *On the Origin of Species by Means of Natural Selection* for publication. The book sold out immediately after its first publication 24 November, 1859. Most scientists quickly embraced the theory, but some audiences condemned Darwin's findings. Darwin's ideas became even more controversial with the publication of *The Descent of Man, and Selection in Relation to Sex* (1871), in which he presented evidence that mankind had evolved from apes. By the time of Darwin's death in 1882, however, his theory of evolution was generally accepted. He was buried in Westminster Abbey in recognition of his scientific work.¹¹

Design features on this banknote include:

- Darwin's pocket compass used on HMS Beagle;
- His magnifying lens;
- HMS Beagle;
- Ammonite fossils (and similarly shaped patterns);
- Plants and animals that Darwin would have likely come across during his travels.

¹⁰ [Charles Darwin - On the Origin of Species | Britannica](#)

¹¹ ["Origin of Species" is published - HISTORY](#)

Bank of England Museum

£20 Series E note featuring Michael Faraday



Information about this banknote

This banknote was in circulation between 1993 and 2001. It was designed by Roger Withington and the Bank of England's design team.

Michael Faraday was a British scientist who studied electromagnetism and electrochemistry. These subjects explore how electricity can be generated through using magnets and chemical reactions.

Born in 1791 in South London, Faraday did not receive a formal education. Instead, he taught himself about science by reading a variety of papers whilst he was working as an apprentice for a book binder.

In 1813, Faraday was employed at the Royal Institution as a chemical assistant and founded the Royal Institution's Friday Evening Discourses and the Christmas Lectures in 1826 (which still take place today). Faraday often delivered the talks himself, and was perceived to be an outstanding scientific lecturer.

In 1831, Faraday discovered electromagnetic induction, which enabled electricity to be transformed into a powerful new technology.

Faraday died in 1867 and is buried at Highgate Cemetery in London.¹²

Design features on this banknote include:

- Images of magnets and magnetic fields in the border at the bottom of the front of the note. The patterns surrounding the bar magnets are similar to those which are created with iron filings.
- Behind the 'Bank of England' text on the front of the note, there are also lots of tiny 'Fe' symbols (the chemical symbol for iron) placed very closely together.
- There are also droplets behind 'England' in the 'Bank of England' text. This refers to Faraday's studies on the liquefaction of gases (turning gases into liquid).
- Faraday was partly responsible for coining many scientific terms which are still used today. Some of these words can be seen on the back of the note on the board to in the lecture scene on the left hand side (Electrode, Anode, Ion, Cathode, Anion, Electrolyte, Electrolyze, Electrolysis, and Cation).
- Faraday also discovered a chemical which is used in many plastics, synthetic fibres and dyes today (Benzene). The chemical diagram is in the purple square on the front of the banknote, and repeated in a pattern above the lecture theatre vignette on the back of the banknote.
- Some of the attendees in the lecture scene on the back of the note were modelled on the faces of some of the people who worked alongside Roger Withington in the Bank of England's banknote design team.

¹² [BBC - History - Michael Faraday](#)