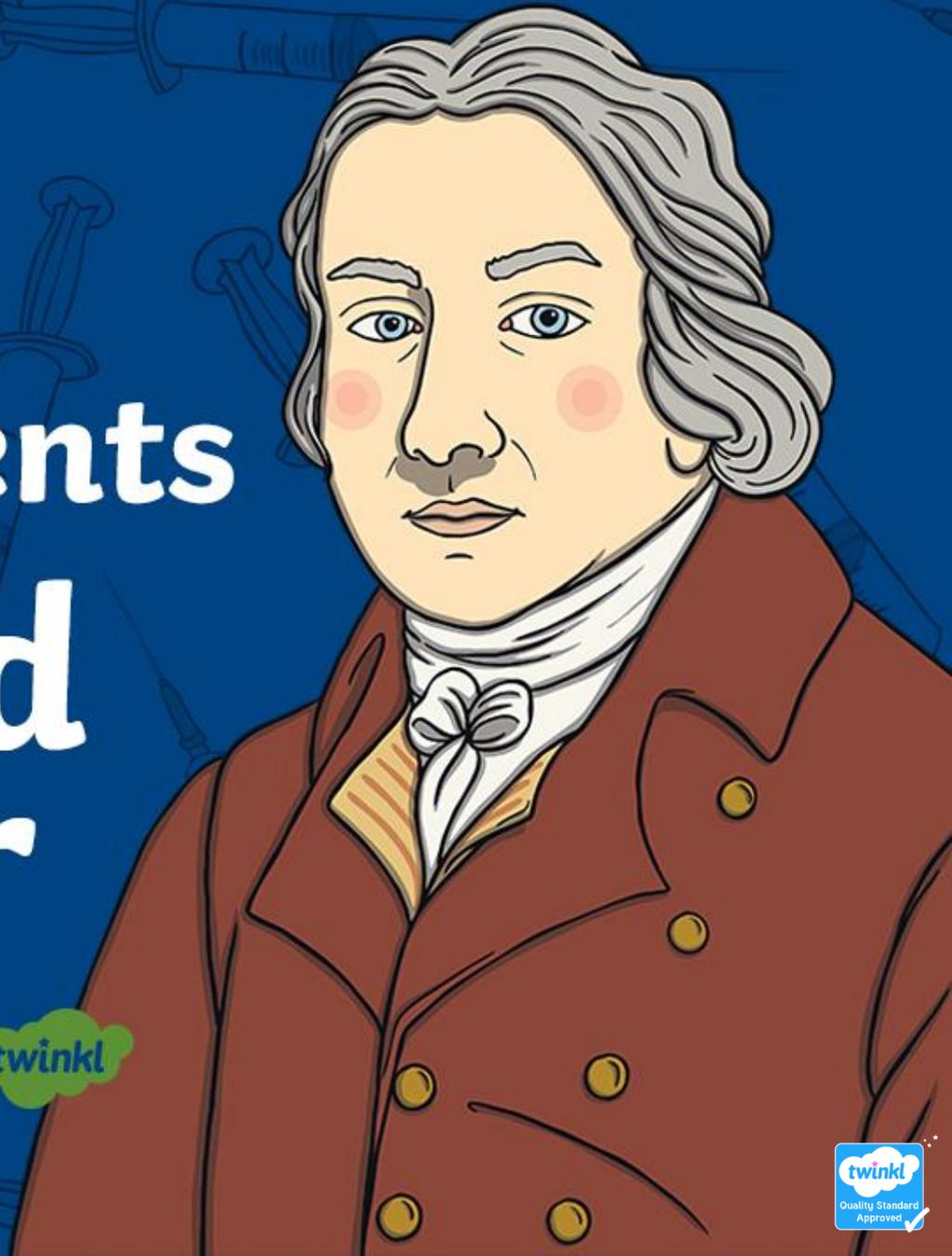


The
Life
and
Achievements
of
Edward
Jenner

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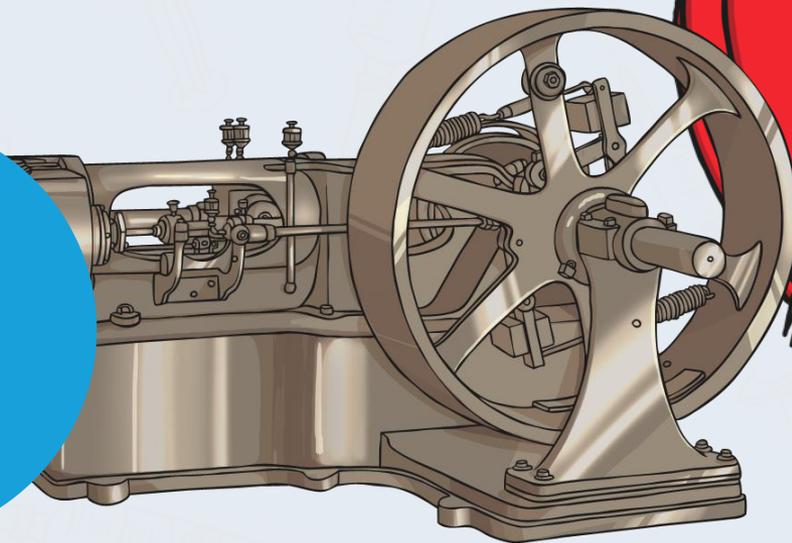


When Did Edward Jenner Live?

Edward Jenner was born in Berkeley, Gloucestershire in 1749. This was the middle of the 18th century, which was an exciting time as many new devices were being invented during this time.

For example:

The first steam engines were invented.



The first steam engines were also invented.



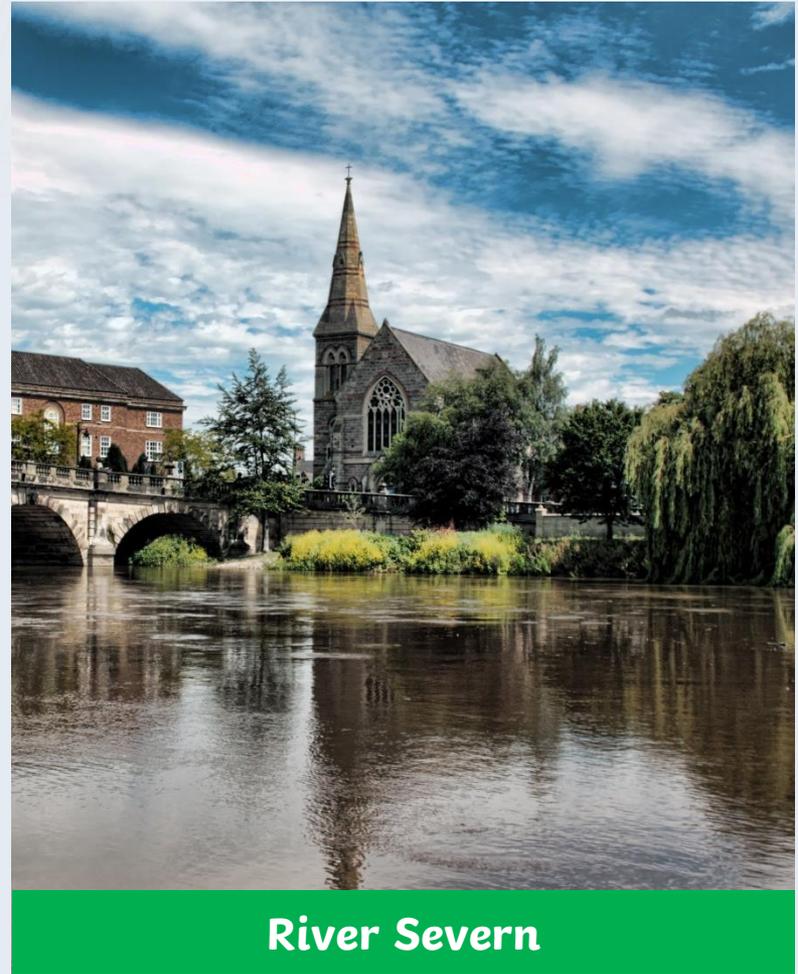
The first hot air balloon flight took place during this time.

Edward Jenner's Early Life

Edward's father was a vicar. Sadly, he died when Edward was only five years old. After that, he was looked after by his mother, brothers and sisters.

Edward was lucky, because at the age of eight, he was able to go to school. Many poor children did not get to go to school at this time in history.

As a child, Edward really enjoyed science and nature. He spent a lot of his time along the banks of the River Severn looking for fossils. He also liked to collect and look at plants and flowers.



River Severn

Edward Jenner's Ambitions

At an early age, Edward decided that he wanted to become a doctor. When he was 15, he went to work for a country surgeon where he helped to prepare medicines and sometimes even helped with some operations.

In 1770, when Edward was aged 21, he went to London to become a qualified doctor.

What do you think may have influenced Edward's decision to become a doctor?

Edward Jenner: The Scientist

As well as being interested in medicine, Edward was a keen scientist.

He enjoyed learning about new discoveries. The very famous explorer, Captain James Cook, even asked Edward to look at some plants he had discovered in the South Pacific.

This was very exciting for Edward as these plants had not been seen in Britain before.

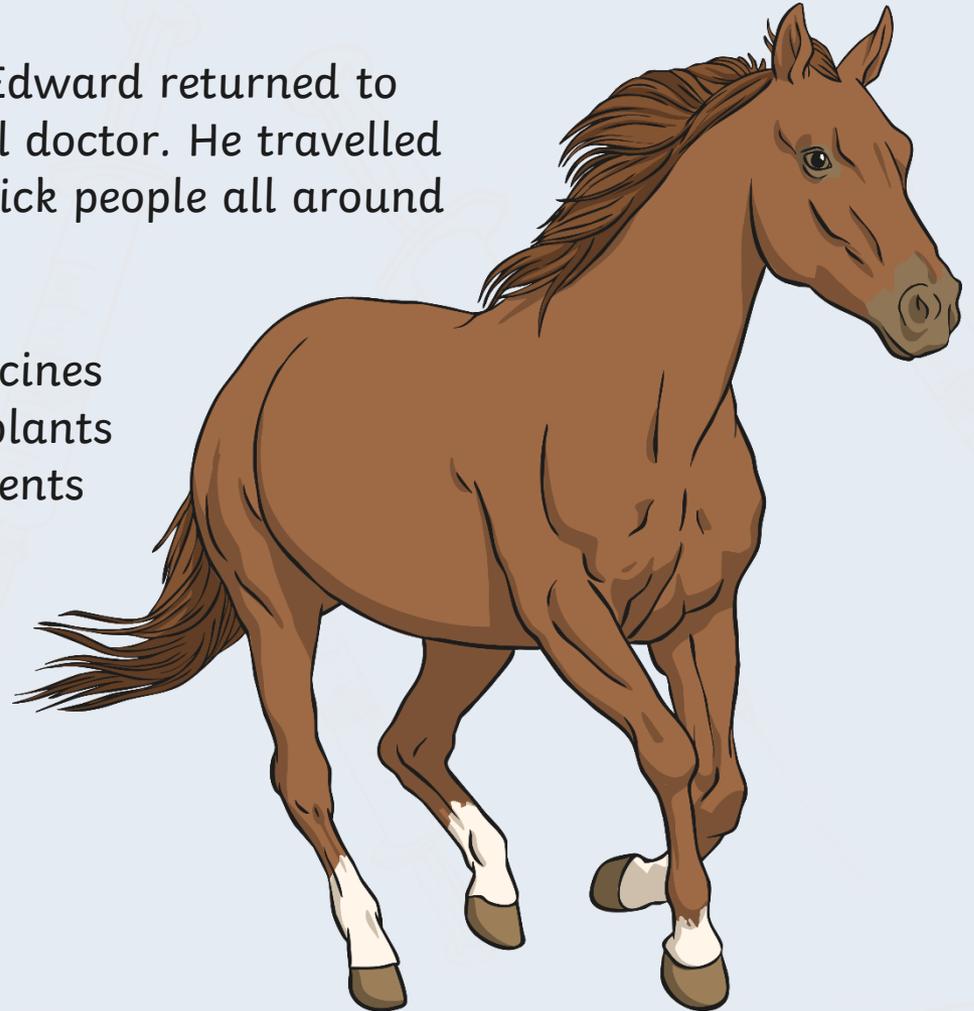


River Severn

Edward Jenner's Life as a Doctor

After he qualified as a doctor, Edward returned to Berkeley and became their local doctor. He travelled on his horse to visit and treat sick people all around the town.

He had a great interest in medicines that could be made from wild plants and flowers, and asked his patients about any remedies they made themselves.



The Smallpox Outbreak

The most common and serious disease at this time was smallpox. Over 2000 people in London died from smallpox. Many of them were children. People who contracted smallpox got little spots on their skin, which were filled with pus.

People who survived were left with scars from the spots and some people even went blind.

It was a very worrying illness in the 18th century with no known cure.

What Could Edward Jenner Do?

Edward asked his patients their thoughts about smallpox as he wanted to work out if it he could find a cure.

One day, he spoke to a dairymaid. She told him that she was not worried about smallpox because she had already had a disease called 'cowpox'.

Cowpox was a disease passed from cows to people and it was very common among dairymaids. It was not a serious illness and those people who had cowpox in their lifetime did not appear to be able to contract smallpox.

Why do you think this was? How do you think Edward Jenner felt about learning this information?



Dairymaid:
Someone who
milked and
looked after
cows in the
18th century.

What Did Edward Jenner Do Next?

Edward knew about something called 'inoculation'.
What do you think inoculation means?

Inoculation is the process of giving someone a mild dose of a disease to prevent them from getting a worse dose. If you have a mild dose, your **immune system** builds up **antibodies** to the disease and can then fight it off in the future.

immune system – the way your body fights off illnesses and infections

Edward decided to try an experiment to see if the dairymaid was right. If you had had cowpox, would you never contract smallpox?

antibodies – a protein in the blood, which recognises alien bacteria and fights against them

Edward Jenner's First Experiment

In 1796, another dairymaid, Sarah Nelmes, went to see Edward to complain that she had a rash on her hand from when she had had cowpox.

Edward scraped some of the pus from the rash on the dairymaid's hand. He then scratched it under the skin of an 8-year-old boy called James Phipps.

This was the first example of a medical vaccination in history.



VACCINATION.
DR. JENNER PERFORMING THE FIRST
VACCINATION IN LAMBETH, ENGLAND.
A COPY OF WHICH WAS IN THE
MUSEUM OF THE ROYAL SOCIETY, LONDON.

What Happened to James Phipps?

Within a few days, James Phipps had caught cowpox. He was slightly ill but recovered quickly.

Eight weeks later, Jenner gave James a mild dose of smallpox. He got a scab but did not develop full-blown smallpox.

Jenner discovered that the young boy had built up a resistance to smallpox because he had been given a small dose of the less dangerous cowpox.

What Happened to the Vaccine?

Edward tried the vaccine on other children and his own son. They were all fine!

At first, people laughed at him and thought his idea was ridiculous. They felt that injecting someone with material from a diseased animal was wrong. However, Edward was determined to prove them all wrong. He wrote a book about his vaccination and soon it was used in hospitals in London.

When doctors in other countries heard about his success, they wanted the vaccine to help sick people where they lived. Edward sent them a sample of his vaccine to use.

Why do you think people laughed at him to begin with? Why do you think he used the vaccine on his own son?

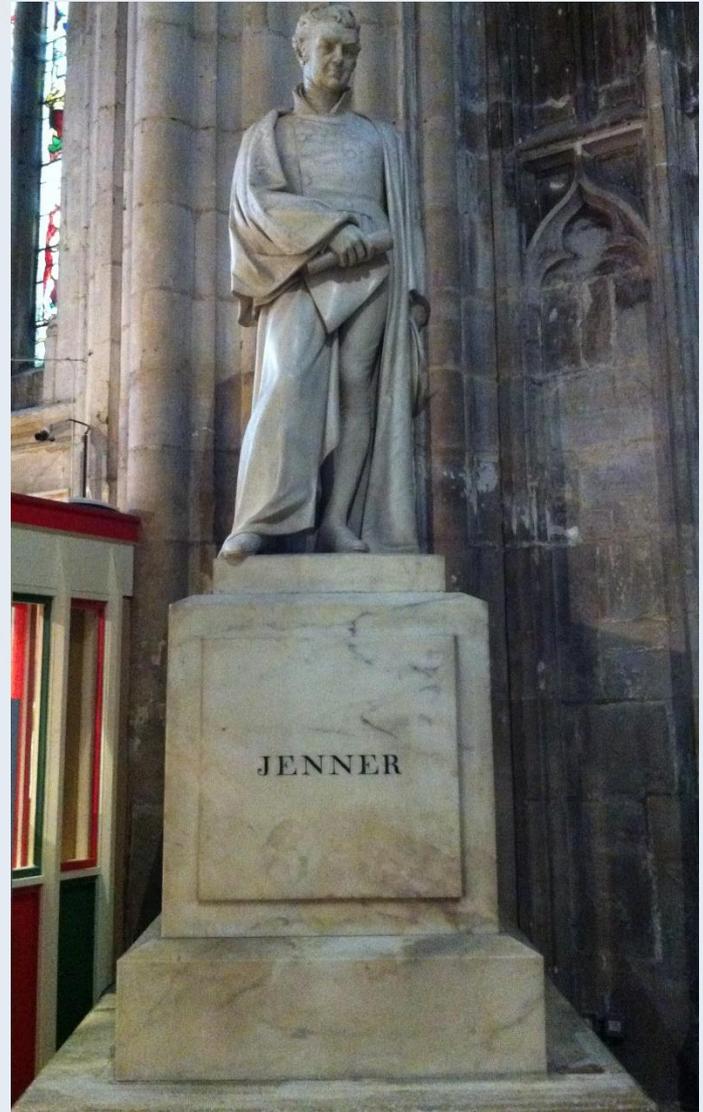
What Happened Next?

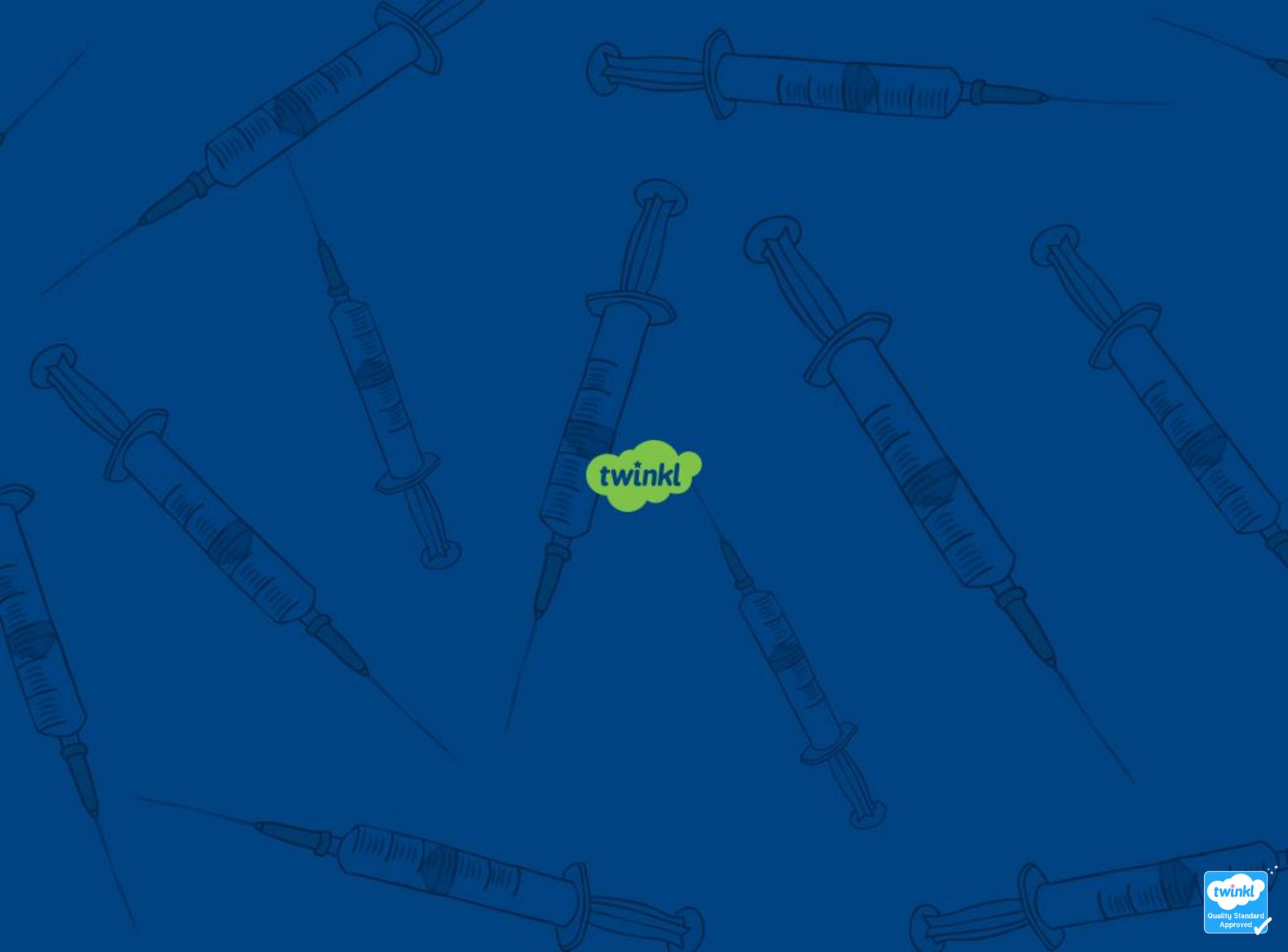
Edward became very rich and famous but he stayed living in his home town of Berkeley. He made sure that he looked after the people who lived there and gave free vaccinations to the villagers.

He was respected across the world for his discoveries. He died in 1823. His legacy lives on as, even though smallpox did not die out for many years, doctors were able to vaccinate people worldwide and eventually smallpox was eradicated (wiped out).

Because of Edward's groundbreaking work, we now have vaccinations for lots of dangerous illnesses and diseases including flu, measles, rubella and malaria.

This is a memorial to Edward Jenner at Gloucestershire Cathedral, England.





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