



Inventions That Changed The World

Float glass

Look out of a window today, and you will see something that was once a wonder of the age. For many years, glass was expensive and hard to make. Until the 16th century, big pieces of glass were made as cylinders. These were then cut and rolled flat. The glass was often bubbly and not very clear. In the 1950s, a pair of British inventors names Alastair Pilkington and Kenneth Bickerstaff came up with a solution. They found a way to float glass onto a bed of molten tin. This produced cheap glass with a perfectly smooth surface. The method is still used today to make all of the glass you see around you.

The lawnmower

Most of us know how hard it is to play sports on long grass. Until the 1820s, grass had to be cut by hand using a scythe. Blenheim Palace once employed 50 labourers to cut the grass every 10 days. Edward Budding had been an inventor for most of his life. In 1830, he came up with an idea for a lawnmower that would replace the scythe. Over the next few years, lawnmowers became more popular and regular people were able to have a lawn for the first time. It also gave sports such as cricket and football a huge boost. Their pitches could now be kept short. This made them much easier to play.

Reflecting telescope

Much of what we know about space and our own planet comes from observing our universe. For many years, this could only be done with poor quality telescopes. When Isaac Newton invented the reflecting telescope in 1668, it was revolutionary. These new telescopes were much clearer. However, they were much more expensive to produce. It wasn't until a hundred years later that they became popular.

Hypodermic syringe

Most of us have had an injection at some point in our lives. It's never pleasant, but at least it's not as bad as it once was. Before the 1850s, doctors would cut the skin open and pour the medicine



into the wound. Doctors in the 1800s had begun to attach needles to long tubes to pump medicine into the body. Unfortunately, there was no way of measuring how much had been administered. In 1853, Alexander Wood demonstrated the first hypodermic syringe. This meant that the correct dose could be given easily and almost painlessly. It was a while before doctors realised that the syringes needed to be clean, though. Infection remained a huge risk for a long time.

Light bulb

People had searched for a workable electric light bulb for many years. Lots of inventors produced designs, including Joseph Swan. They all recognised that they needed to create a bulb without any oxygen in it. With oxygen, the filament would burst into flames or burn too quickly. The problem was, nobody could make a perfect vacuum. Swan created various bulbs in the 1850s and 1860s. However, it wasn't until his design in 1875 that he cracked it. He was finally able to demonstrate a working bulb on 17th January 1879. His house became the first in the world to be lit by electric light in 1880.

INFERENCE FOCUS

1. Why did the lawnmower help some sports to get better?
2. Why didn't reflecting telescopes become popular straight away?
3. Why were injections worse before the hypodermic syringe?
4. Why weren't hypodermic syringes enough on their own?
5. Why couldn't people figure out a way to make efficient light bulbs?

VIPERS QUESTIONS

R

When was the first working light bulb demonstrated?

V

Find a word that means something was unheard of or changed everything.

S

Why was the hypodermic syringe important for giving people the correct amount of medicine?

R

What was used to cut grass before the lawnmower?

V

Write a definition for "administered".

Answers:

1. It meant that the grass could easily be kept short to play on
2. They were too expensive
3. Doctors had to cut open the patient and pour the medicine in
4. Doctors still didn't realise that they needed to be kept clean
5. They couldn't create a perfect vacuum

R: 1879

V: Revolutionary

S: It allowed doctors to measure accurately how much medicine had been given

R: A scythe

V: Delivered or given