

FIVE inventions that made the modern world

1 Camera

We take photos on our phones and share them with our friends in seconds. But when the first camera was invented in 1827, it took eight hours to develop the photos! In 1888, the American George Eastman invented the 'Kodak photographic machine' which was smaller and had flexible film. Suddenly ordinary people could take photos. Early photos were in black and white, but colour film was introduced in the 1930s.

2 Combustion engine

Imagine if there were no cars, motorbikes, lorries or buses! The combustion engine was invented by a German, Nikolaus Otto, in 1878. And another German, Karl Benz, built the first car in 1885 using Otto's new engine. In 1888, his wife Bertha was the first long-distance driver of this three-wheeled car. She drove their teenage sons on a 106-kilometre trip. It was a long journey because the car went at 16 km an hour! And Bertha had to repair the car during the trip!

3 Light bulb

Is it getting dark? Well, turn on the light! The first successful light bulb was invented in 1879 by the American inventor, Thomas Edison. A light bulb is a glass bulb which is filled with gas and has a thin wire inside it. The wires in the earlier light bulbs burnt quickly, so Edison tried thousands of different wires before he found the right one! Edison is also famous for developing the world's first electric lighting system, which was in New York.

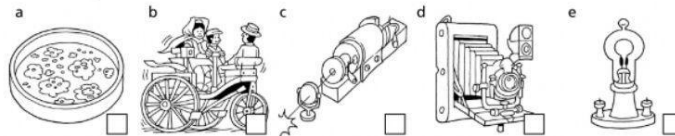
4 Laser

When you play a DVD or a CD, buy things at a cash desk, download music or send an email you are using a laser. Albert Einstein predicted laser technology, but it was developed 40 years later in 1960 by an American called Theodore Maiman. A laser is a concentrated beam of light and it has thousands of uses in medicine, computing, industry, astronomy and medicine. In future lasers may help us produce solar energy.

5 Antibiotics

If we're ill with an infection, the doctor gives us antibiotics. They are a miracle drug. Antibiotics are a living substance which we get from mould. But they were discovered by accident. In 1928, a Scottish scientist called Alexander Fleming noticed that mould killed bacteria in his laboratory. He realised that they could cure illnesses, and made a medicine called penicillin.

1 Match the pictures with the inventions in the text.



2 Read the article and complete the table.

Invention or discovery	Inventor(s) & nationality	Date of invention or discovery
camera	George Eastman, American	1888
combustion engine	Nikolaus Otto, _____	_____
car	_____, German	_____
_____	_____, American	1879
laser	Theodore Maiman, _____	_____
_____	Alexander Fleming, _____	1928

3 Match the word on the left side to its definition on the right side.

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|-------------------------------|--|
| 1. The first camera | ● A. was 106 km long |
| 2. Kodak photographic machine | ● B. realised that by using antibiotics could cure illnesses |
| 3. George Eastman | ● C. is filled with gas and has a thin wire |
| 4. Colour film | ● D. developed laser technology |
| 5. Nikolaus Otto | ● E. it took 8 hours to see the photo |
| 6. Karl Benz | ● F. was invented in 1888 and had a flexible film |
| 7. First long distance trip | ● G. invented Kodak camera |
| 8. The journey in this trip | ● H. took 6 hour and 37,5 minutes. |
| 9. Thomas Edison | ● I. are living substance discovered by accident |
| 10. A light bulb | ● J. _____ |
| 11. In New York | ● K. the people could use electric lightning system |
| 12. Theodore Maiman | ● L. used Otto's engine to build firsts car |
| 13. Antibiotics | ● M. invented combustion engine |
| 14. Alexander Fleming | ● N. invented light bulb in 1879 |
| | ● O. was used from 1930. |