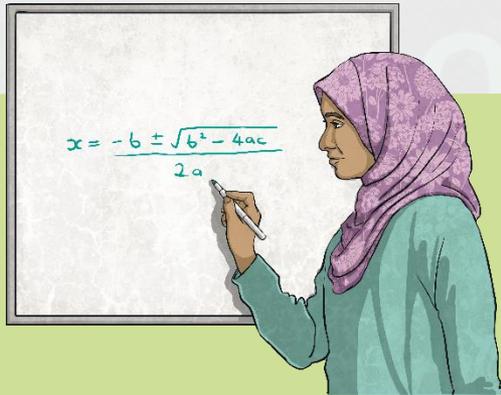


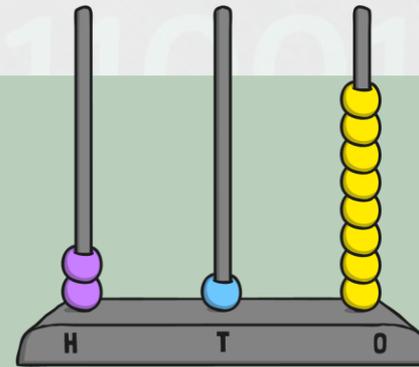
# The History of Computing

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# The First Computers



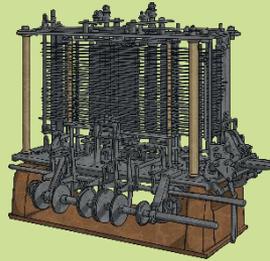
Surprisingly, the word “[computer](#)” was first used over 400 years ago in 1613! Back then, it described a person who did perfect calculations or “computations”.



Even long before then, in 500 BC in Babylon, people used an abacus to perform calculations. Today, children in different countries still use an [abacus](#) (known as a soroban in Japan) to perform extremely fast mental calculations.

# Charles Babbage

Charles Babbage first described the Analytical Engine in 1837 and is often considered to be a “Father of the Computer”.



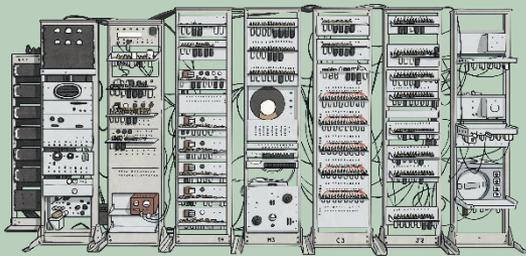
The Analytical Engine was designed to use punched cards which had patterns of holes punched in them to control a mechanical calculator.

Although it was Babbage who invented the machine, it was actually a woman, Ada Lovelace, who first saw that the machine could do more than just single calculations. In 1842, she created an [algorithm](#) for the machine to perform thus making her the first computer programmer!



# Alan Turing

Alan Turing was one of the foremost mathematicians of all time. His work on codebreaking with his computer, the Bombe, at [Bletchley Park](#) during WWII (1939-1945) was revolutionary and experts estimate helped to shorten the war by two years.



In 1948, Turing became Reader in Mathematics at the Victoria University in Manchester. His role there was to develop the software for the world's first stored program computer, the Manchester Baby and its successor, the Manchester Mark 1.

# Computer Games

The first known computer game was demonstrated in the Canadian National Exhibition in 1950. This was an electronic version of noughts and crosses which was dismantled after the exhibition finished!

By 1962, the first video game available outside of a single establishment was released called Spacewar! It simulated a dogfight between two spaceships.

The 1970s saw the rise of commercial video games with Pong in 1972, a 2D table tennis game, and Space Invaders in 1978 leading the way towards the huge gaming market we see today.



# Microsoft

Bill Gates founded Microsoft with Paul Allen in 1975, having dropped out of Harvard to do so. Within a decade, Microsoft had become a major player in the PC [software](#) industry.



Microsoft developed the MS-DOS operating system in partnership with IBM and in 1985, the first retail version of Windows was launched.

By 1987, Gates was the world's youngest billionaire at 31. Since stepping down as [CEO](#) of Microsoft, he has focused on [philanthropy](#) through the Bill and Melinda Gates Foundation.

# Apple

Apple Computer Company, later known as Apple Inc, was founded in 1976 by Steve Jobs, Steve Wozniak and Ronald Wayne.

After the initial success with the Macintosh during the 1980s, the company declined in the 1990s when Microsoft took much of the market with their Windows based personal computers.

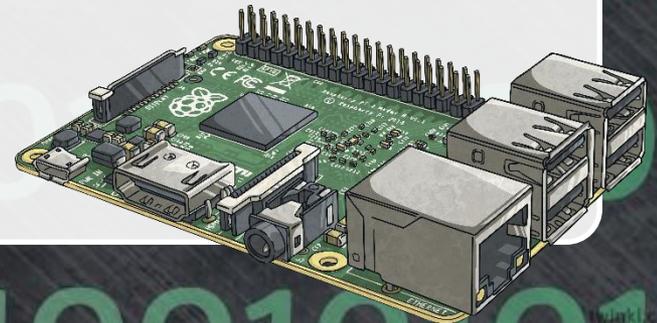


Known for their slick design and [innovative](#) new products, Apple produced a portable computer in 1989, a tablet in 1992 and the first iPod in 2001.

# Programming and Coding

The release of the Raspberry Pi in 2012 brought [programming](#) to the forefront of education. Available for only £35, this single-board computer was developed to support schools teaching computer science in the UK.

There are many resources available online now for learning basic coding including Hopscotch and Scratch. Most coders started off writing these sorts of simple programs at home!



# The World Wide Web

Tim Berners-Lee, a British scientist, invented the World Wide Web in 1989. It is an information space which is accessed by the Internet.



The first network email was sent in 1971 and by 2015, it was estimated that over 205 billion emails were sent and received EVERY DAY!

It's hard to imagine the world without the World Wide Web today. We access it for research, to send emails, find photos and watch films. It uses URLs (Uniform Resource Locators) as an "address" for each page and hyperlinks for people to find their way between those pages to the data they require.

# Glossary

**Abacus** – a frame with rows of beads use for calculating

**Algorithm** – a sequence of rules to be followed in calculations

**Bletchley Park** – the central site for top-secret British codebreakers in WWII

**CEO** – Chief Executive Officer or highest ranking person in a company

**Computer** – an electronic device which receives data and performs sequences of operations in accordance with a program

**Innovative** – new, advanced and original ideas

**Philanthropy** – the desire to promote the welfare of others often including donation of money to good causes

**Programming** – the process of writing computer programs

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