



1912 - 1954

# Alan Turing

**An amazing mathematician whose code-cracking skills saved thousands of lives**

Turing was born on 23 June, 1912 in Paddington, London. After Sherborne School he studied mathematics at Cambridge where he was introduced to mathematical logic. After graduating he pursued a life of research and, at the age of 24, developed the first of a series of major scientific ideas.

Motivated by problems of logic and the limits of our mathematical knowledge, he developed a mathematical model of a computing machine which could be programmed to simulate any other machine and proved that there were problems that the machine could not solve. This mathematics laid the foundations for modern computing.

As soon as World War II began in September 1939, Alan joined the British Government's top-secret code-breaking school at Bletchley Park, near Milton Keynes. Alan and fellow mathematician Gordon Welchman designed a new machine, called the Bombe, that proved vital in helping code breakers crack German communications using the Enigma code.

After the War, Alan designed a high-performance computer called the ACE, studied the practical problems of large-scale numerical computation, explored the logical problems involved in proving programs are correct, and set AI standards for machines to be compared with people.

Turing died by his own hand aged 41.

**Full name:** Alan Mathison Turing  
**Born:** 23 June 1912  
**Hometown:** London, England  
**Occupation:** Mathematician  
**Died:** 7 June 1954  
**Best known for:** Creating machines that helped crack the Enigma code and laying the foundations for modern computers and AI



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