

# **ALAN TURING**



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

### EARLY LIFE AND EDUCATION

Alan Mathison Turing was born on June 23, 1912, in London, England. He was educated at a top private school and then attended the University of Cambridge. He wrote a number of important papers while there.

In 1936, Turing moved to Princeton University in the United States to study for a doctorate in mathematical logic. It was during that time that he introduced the theory for a computing device called the Turing machine. The Turing machine became the basis for all digital computers. Turing completed the doctorate in 1938.



# CODE BREAKING



In September 1939, Great Britain went to war against Germany. During the war, Turing worked at the Government Code and Cypher School at Bletchley Park. Turing and others designed a codebreaking machine known as the Bombe. They used the Bombe to learn German military secrets. By early 1942 the code breakers at Bletchley Park were decoding about 39,000 messages a month.

At the end of the war, Turing was made an Officer of the Most Excellent Order of the British Empire.

#### COMPUTER DESIGNER

In 1945, after the end of World War II, Turing was recruited to create an electronic computer. However, the machine he designed was thought to be too difficult to build. A much smaller machine was built instead. Turing then moved to the University of Manchester. The world's first working digital computer

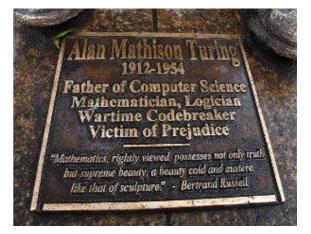


was built there in 1948. Turing designed an input-output system and the programming system for the computer.

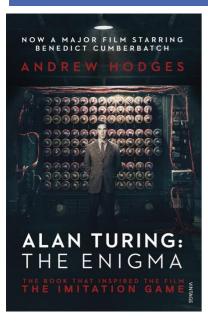
#### FINAL YEARS

In 1952 Turing was found guilty of being a homosexual. It was a crime in Britain at the time for two men or two women to be in a relationship. As a result, Turing had a criminal record, so he could no longer work for the government's codebreaking centre. He spent the remaining years of his life working in Manchester, researching artificially created living things.

Turing was found dead in his bed on June 7<sup>th</sup> 1954, in Wilmslow, England. No conclusion could be found about how he died: it may have been a suicide, an accident, or a murder.



# LEGACY



Every year, beginning in 1966, a person who has made a great contribution to the field of computer science is awarded the Turing Award. The Turing Award is often referred to as the computer science equivalent of the Nobel Prize.

To honour this remarkable man, who helped speed up the end of the war and whose work led to the technology we all use today, Alan is shown on the new £50 note.

There has been a film made called *Alan Turing: The Enigma*. Benedict Cumberbatch plays Alan.

Furthermore, one of the main roads in Manchester – near Manchester United's stadium – is called 'Alan Turing Way'.

#### FIND OUT MORE ...

https://www.natgeokids.com/uk/discover/history/general-history/the-life-of-alan-turing/

## EXAMPLE QUESTIONS:

- 1. When and where was Alan Turing born?
- 2. What was the code breaking centre called?
- 3. What was the code breaking machine called?
- 4. Why was Alan given a criminal record?
- 5. Alan features on which new bank note?



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