Alan Turing

Alan Turing was an English scientist, mathematician and codebreaker. He is best known for his important role in cracking German codes during the Second World War.

Early Life

Alan was born on 23rd June, 1912 in London. His father, Julius, worked for the Indian Civil Service and his mother, Ethel, was the daughter of the chief engineer of the Madras Railway in southern India. Julius and Ethel spent a lot of time travelling between their homes in Hastings, in England, and India. Because they wanted their children to be raised in Britain, Julius and Ethel decided that Alan and his older brother John would not travel to India with them. Instead, while their parents were in India, the boys would stay with friends of the family in England.
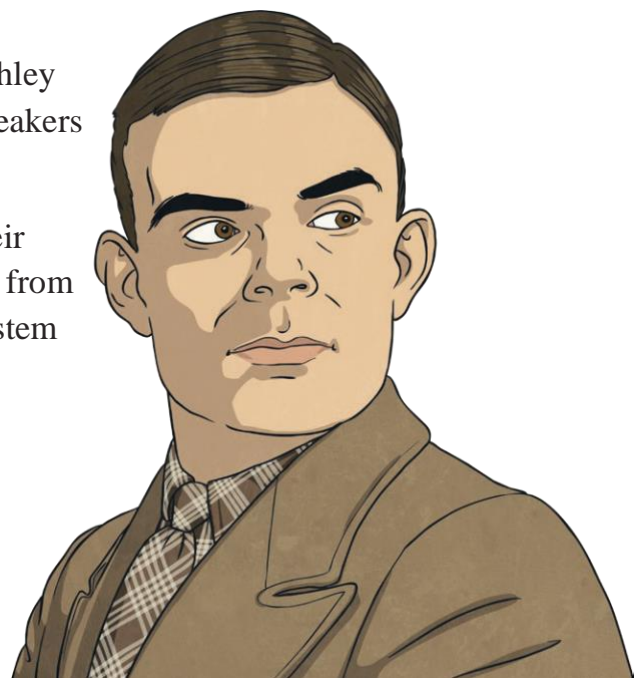
Childhood Genius

From a very early age, it was clear that Alan was very clever. Stories about Alan's childhood show a boy who enjoyed puzzles and challenges. One story tells that Alan tracked the path of flying bees so that he could find their hive and get honey for his family.

At the age of 13, Alan joined Sherborne School – a **boarding school** in the county of Dorset. It was while at Sherborne School that Alan's excellence in mathematics and science became clear. He was able to solve problems and understand ideas far harder than a child of his age usually could. At only 16 years of age, Alan was able to understand the work of **Albert Einstein**.

Bletchley Park

Alan was 27 years old at the start of the Second World War, and had been working part time at Bletchley Park. He worked there with the Government Code and Cypher School. Bletchley Park was a **stately home** at which all codebreakers worked during the war.

The German army believed that changing their messages into code would stop their enemies from reading them. The Germans used a clever system which involved replacing one letter with another lots of times. By writing

down what changes had been made, German soldiers could still read the original message, even though what they had received did not appear to make any sense.

However, a machine called the Enigma had been invented by Polish codebreakers during the First World War. In 1939, the Polish codebreakers shared their machine with British and French codebreakers so that they could learn the Germans' secrets and outsmart them in the war. The Enigma machine tried to change the Germans' codes back into the original message that was sent.

Alan and a team of codebreakers tried to use the Enigma machine to break the German code. Within weeks of starting work at Bletchley Park, Alan had created a new machine called 'the bombe'. Alan's machine was far better at cracking codes than the Enigma machine had been. His new machine became one of the most important tools used to read German messages and it played a huge part in ending the Second World War.

For his services during the war, Alan was awarded an OBE (Officer of the Order of the British Empire) by King George VI in 1946.

Glossary

Albert Einstein: A scientist and philosopher who is credited with making some of the greatest scientific discoveries in recent history.

boarding school: A school at which the students also live, as well as learn.

stately home: A large and impressive house that is or was lived in by a rich family.

Questions

1. Which of these is **not** a member of Alan Turing's family? Tick **one**. ◯

   Ethel
   ◯ Albert
   ◯ Julius
   ◯ John

2. Number the events below to show the order in which they happened during Alan's life. The first one has been done for you.

   ☐ Alan joined Sherborne School.
   ☐ Alan began to work at Bletchley Park.
   ☐ Alan was awarded an OBE for his wartime services. Alan
   ☐ could understand the works of Einstein.
   ☐ Alan was born in London.
   1

3. Where did Alan and his brother stay while his parents were in India?

   _____

4. …had been working part time at Bletchley Park. Explain what you think 'part time' means.

   _____

5. Find and copy a phrase from the text which shows what Alan enjoyed doing as a child.

   _____

6. Explain why Alan's teachers thought that he was special.

   _____
   _____
   _____

7. How did the Germans turn their messages into code?

   _____
   _____
   _____

8. Why do you think Alan created 'the bombe' machine so quickly?

   _____
   _____
   _____