LEVEL 1 | UNIT 1
TECHNOLOGY HEROES

ALAN TURING

Reading 3



SKILLS:

- Organization
- Identify synonyms

GETTING STARTED:

What is the best device humans have invented?

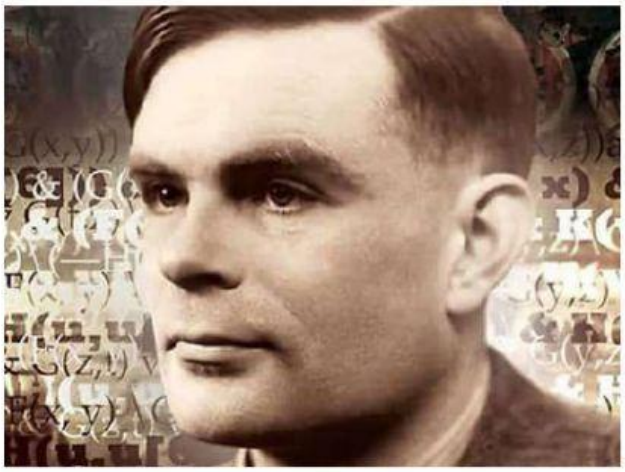
The persecuted and eventually pardoned Alan Turing was the great mind that was able to **crack** the Enigma machine, a type of **enciphering** machine used by the German army to send messages securely. During the Second World War, Turing worked for the Government Code and Cypher School, Britain's center that produced ultra-intelligence. Turing played a crucial role in cracking intercepted coded messages that enabled the Allies to defeat the Nazis in many crucial combats, including the Battle of the Atlantic. By doing so, he helped win the war.

In the latter part of the war, he worked for the Radio Security Service. There, he developed his knowledge of electronics with the assistance of engineer Donald Bayley. Together they designed and built a portable secure voice communications machine called Delilah. This device was intended for different applications, but it couldn't be used with long-distance radio transmissions.

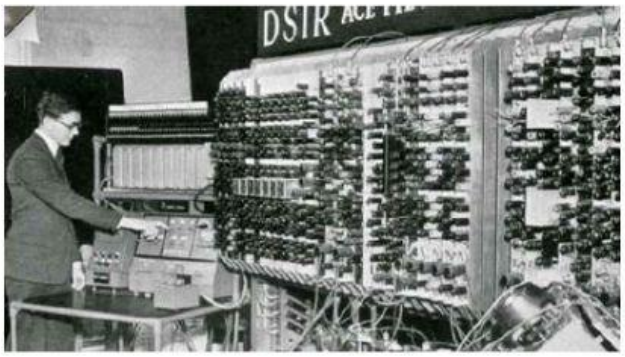
LIVEWORKSHEETS

LEVEL 1 | UNIT 1
TECHNOLOGY HEROES

After the war, in 1948, he became Director of the Computing Machine Laboratory at Victoria University, where he worked on the development of a software for one of the earliest computers, the Manchester Mark 1. Turing wrote the first version of the Programmer's Manual for this machine and was hired as a consultant in the development of a commercialized machine, the Ferranti Mark 1.



In 1951, he turned to mathematical biology, finally publishing his work "The Chemical Basis of Morphogenesis" in January 1952. One of his interests was morphogenesis, the development of patterns and shapes in biological organisms. Turing's work on morphogenesis remains relevant today and is considered an influential piece of work in mathematical biology.



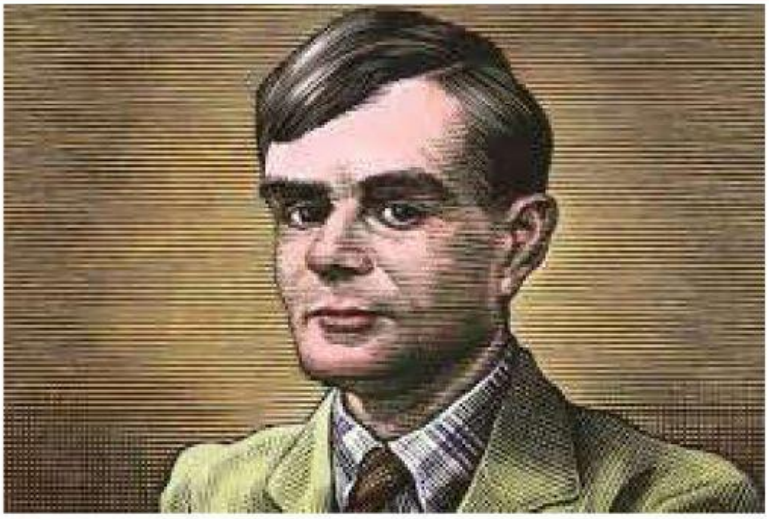
Turing is considered the father of theoretical computer science and artificial intelligence. The creation of the Turing Machine is regarded to have been the foundation of modern theories of computation and computability. From the iPad to Facebook, much of the technology we use today can be traced back to Turing's genius.

Glossary:
- **Crack:** to find the solution to a problem.
- **Encipher:** convert a message into a coded form.

> *A man provided with paper, pencil, and eraser and subject to strict dicipline, is in effect a universal machine.*
>
> *Alan Turing*

LIVEWORKSHEETS

LEVEL 1 | UNIT 1
TECHNOLOGY HEROES



1. Organize the following events in the life of Turing in chronological order:

1____ 2____ 3____ 4____ 5____

a. He released a book
b. He worked on a computer program
c. He designed a device to talk with people.
d. He worked for an intelligence agency.
e. He was able to decode messages from the enemies.

2. In each paragraph, look for synonyms of the following words or phrases:

- Paragraph 1: vital, allowed, beat
- Paragraph 2: final, help
- Paragraph 3: employed
- Paragraph 4: is still, very important
- Paragraph 5: considered

What do you think?

If you could use only one, which one would you use? A computer or a cell phone?

LIVEWORKSHEETS