

## Artificial Intelligence (AI) Knowledge Organiser

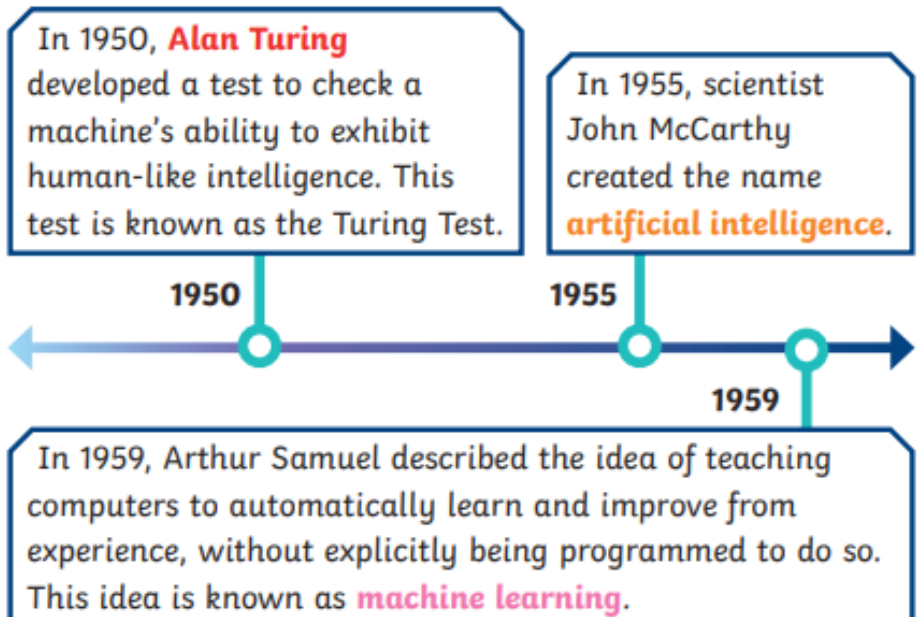
Key Vocabulary	
<b>Alan Turing</b>	An English computer scientist, mathematician and codebreaker who is known as one of the founders of modern computing and an early pioneer in the world of <b>artificial intelligence</b> .
<b>algorithm</b>	A set of sequenced instructions or rules for solving a problem or completing a task in a logical order.
<b>artificial intelligence (AI)</b>	Technology that can make computers learn and have human-like intelligence.
<b>machine learning</b>	A subset of <b>artificial intelligence</b> where computers use huge amounts of data to learn how to do tasks rather than being programmed to do them.
<b>programming language</b>	A way for programmers to communicate with computers. Most <b>programming languages</b> are text-based but they can also be image-based.
<b>technology</b>	The use of knowledge to invent new devices or tools. Technology can also refer to these devices or tools themselves.

### What Is Artificial Intelligence (AI)?

**Artificial Intelligence (AI)** refers to **technology** that can make computers learn and have human-like intelligence. A machine containing **AI** can be programmed to perform human-like tasks, based on the information it takes from its surroundings and from previous experience. **AI** is able to process language, learn and problem-solve.

### The History of AI

Although **AI** can be traced back as far as ancient times, the modern world of **AI** that we know today started to develop in the mid-20<sup>th</sup> century.



## Programming Languages

AI uses **algorithms** to follow rules and determine how to respond to certain actions. Here are some examples of **programming languages** that AI may use:

### JavaScript



### Python



## Advantages of AI

- With **AI**, human error could be less likely.
- **AI** does not need sleep or rest.
- **AI** can be programmed to do repetitive tasks.
- **AI** can make decisions quickly.



## Disadvantages of AI

- **AI** can break and malfunction.
- **AI** can be expensive to develop and maintain.
- **AI** can be biased.
- **AI** only knows what it has previously been shown.

## How Is AI Used Today?

AI is increasingly becoming part of most people's daily lives. You can find **AI** systems and programs almost everywhere you go. Here are some examples of **AI technology**:

### voice assistants



### smart home devices



### self-driving cars



### chatbots



## AI Safety

AI is a fantastic tool for doing lots of different tasks. Just as we have to be careful when we use other tools, we need to be careful when using **AI**. Here are some tips on how to stay safe:

- Only use **AI technology** that a trusted adult has given you permission to use.
- Do not share personal information, such as your name, address or phone number, with **AI** systems.
- **AI** systems are not perfect and can make mistakes, so always double-check any information you receive from them.