

Computing — Artificial Intelligence

Construction

To build something from parts

Year 6

Prior Knowledge

Year 3—You learnt that computers follow instructions, explored algorithms, and used simple programs to control on-screen objects.

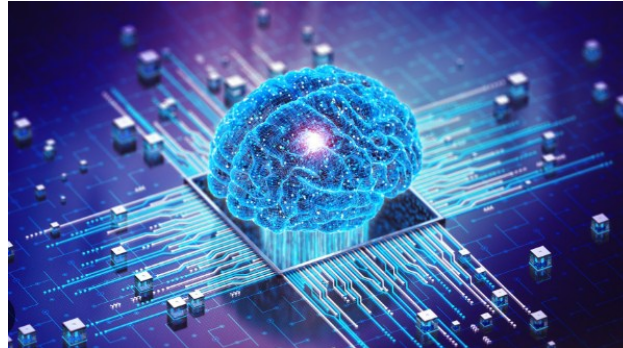
Year 4— You learnt how data is collected and represented, used programs that make decisions, and understood that digital systems can behave differently based on inputs.

Year 5— You learnt about selection and repetition in programs, explored how data can be sorted and searched, and discussed online safety and how technology can affect people.

Year 6—You learnt to build on prior knowledge of data, algorithms and decision-making to understand how AI systems are trained, how they generate outputs, and how they can be used responsibly and ethically.

Future knowledge

KS3 - You will build on prior knowledge of data, algorithms and decision making to understand how AI systems are trained, how they generate outputs, and how they can be used responsibly and ethically.



My Component Knowledge:

Lesson 1: I can define Artificial Intelligence and identify examples in daily life.

Lesson 2: I can recognise how AI processes and responds to text prompts.

Lesson 3: I can explain how image-based AI uses training data and recognise that bias can affect the results.

Lesson 4: I can use simple code or rules to model how AI systems make decisions based on inputs.

Lesson 5: I can evaluate the positive and negative impacts of AI and explain why responsible use is important.

My Composite Knowledge:

I can explain how artificial intelligence uses data and algorithms to recognise patterns and make predictions. I can combine my prior knowledge of programming and digital systems to understand how AI systems are trained, how they are different from traditional programs, and where I might encounter AI in everyday technology.

My Powerful Knowledge:

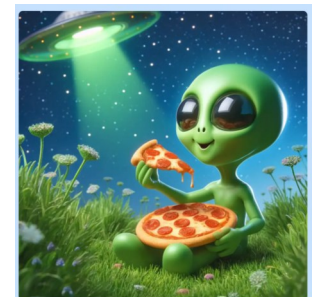
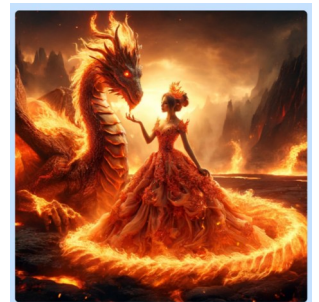
I understand that AI is designed by humans and does not think or feel like a person. I can explain how the data used to train AI can affect its accuracy and fairness, and I can think critically about the ethical impact of AI so that I use and evaluate AI tools responsibly.

Key Vocabulary

Tier 1: computer, data, instructions, image, text

Tier 2: artificial intelligence (AI), input, output, prediction, training

Tier 3: algorithm, machine learning, data bias, model, ethical, automation



What is AI?

How does AI respond to text prompts?

How does AI recognise and create images and why does this matter?