Knowledge Organiser - Artificial Intelligence

Key Terms & Definitions

1	Artificial Intelligence (AI)	Technology that enables machines to perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making.
2	Machine Learning	A subset of AI that involves training machines to learn from data and improve performance on specific tasks without being explicitly programmed.
3	Algorithm	A set of instructions or rules that a computer follows to solve a problem or perform a task. In AI, algorithms are used for tasks like decision-making and pattern recognition.
4	Data	Information or facts that are collected and stored for analysis. In AI, data is used to train machine learning models and make predictions.
5	Model	A simplified representation of a real-world system or phenomenon used in AI to make predictions or decisions based on data.
6	Training	The process of teaching a machine learning model by providing it with labeled data and adjusting its parameters to improve performance.
7	Chatbot	A computer program designed to simulate conversation with human users, often used for customer service or information retrieval.
8	Ethical AI	The practice of developing and using artificial intelligence in a way that is fair, transparent, and respects human values and rights.
9	Deep Learning	A subset of machine learning that uses neural networks with many layers (deep neural networks) to learn from large amounts of data.
10	Supervised Learning	A type of machine learning where the model is trained on labeled data, meaning the correct outputs are provided during training.
11	Unsupervised Learning	A type of machine learning where the model learns from unlabeled data, identifying patterns or structures on its own.
12	Computer Vision	A field of AI that enables computers to interpret and analyze visual information from images or videos.
13	Data Privacy	Concerns and regulations related to the protection of personal or sensitive information in AI systems and data-driven applications.
14	Bias in AI	Systematic errors or prejudices in AI algorithms that can lead to unfair or discriminatory outcomes, often resulting from biased

		training data or flawed algorithms.
15	Fairness in AI	The principle of ensuring that AI systems treat all individuals and groups fairly and without bias, regardless of factors such as race, gender, or socioeconomic status.