

Topic: 9.3 AI & Machine Learning		Duration: 6 weeks		Composite: Project		
Key vocabulary:	Core knowledge questions	Powerful knowledge crucial to commit to long term memory	Links to previous and future topics			
Algorithm Artificial Intelligence Bias Data Feasibility Filter Bubble Machine Learning Modelling Natural Language Processing Visualise	<ol style="list-style-type: none"> 1. What is AI? AI stands for Artificial Intelligence which is technology that enables a computer to think or act in a more 'human' way. It does this by taking in information from its surroundings, and deciding its response based on what it learns or senses. 2. What is machine learning? Machine learning is a field of computer science that gives computers the ability to learn without being explicitly programmed. 3. How do computers learn? Computers learn by being given a set of sources of a task being performed and the computer copies how to do that task. 4. What is a model? A model is a program created through machine learning as an example. 5. What is natural language processing? Natural language processing/chatbots are used to improve human/computer interaction. 6. How can machine learning be used for recommendations? Recommendation systems can be very useful but may also filter out other options that you may have been interested in. 7. What is a filter bubble? A filter bubble is your own unique universe of information that you live in online. You don't decide what gets in and you don't see what gets edited out. 8. What are the potential disadvantages of machine learning? The mass collection of data, misinterpretation of results, bias. 9. What is a neural network? Neural networks are modelled loosely on the human brain and enable computers to learn from being fed data. 	<ul style="list-style-type: none"> • Artificial Intelligence is training a computer to think or act like a human. • Machine learning is the method of exposing a computer to data sets in order for it to learn. • A model is a program developed from machine learning. • Natural language processing is used to improve human/computer interaction (HCI) • Filter bubbles are where recommendation systems only show you content that aligns with your bias. 	<ul style="list-style-type: none"> • Links to Programming units in Year 7 and 8 • Utilises computational thinking and skill building for KS4 Computer Science. 			
We will develop these skills:						
Impressive reading	Impressive speaking	Impressive writing	Resilience	Numeracy via:	Digital Literacy via:	Employability via:
Read newsround article about AI.	Discuss how AI can be used for good.	Create a presentation to highlight how AI can be used for good.	The need to amend and refine coding blocks to ensure machine learning is efficient.	N/A	Using machine learning	Develop skills that are advantageous in a modern world.