INTRODUCTION TO AI – OVERVIEW

Overview

This unit will develop students' understanding of digital literacy, computer networks and using search technologies safely through the use of AI. Students will also deepen their knowledge and understanding of algorithms, sequencing, logical tests as they mimic AI in their own programs.

In this unit, students will learn what AI is, how it works and how it differs from standard search engines. Students will learn how AI is used in day-to-day life and the possibilities and limitations that come with it. Students will combine literacy skills as they use a variety of software to create content. They will recognise the importance of staying safe online and develop their understanding of how to use technology respectfully and responsibly.

Most AI tools have a minimum age rating of 13+ or older and are not considered suitable for use by primary age students. The Gemini app AI tool, as long as it's accessed via a qualifying Google Workspace for Education account, has the necessary content and data privacy protections required for younger learners.

National Curriculum

The areas of the National Curriculum and the key computing concepts covered in this unit are outlined in the table below:

Knowledge and understanding	Computing concepts
To use technology safely, respectfully, and responsibly; recognise unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Digital literacy – understanding how to behave responsibly when using digital services and e-safety.
To select, use and combine a variety of software (including internet services) to create content that accomplishes given goals.	Data and information – creating and manipulating digital content.
To understand computer networks, including the internet and how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.	Computer systems – understanding how networks can be used to retrieve and share information.
To use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.	Digital literacy – understanding how not everything that search technologies return is accurate.
To design, write and debug programs that accomplish specific goals.	Programming – understanding logical sequences and how to fix errors with inputs and outputs.
To use sequence, selection, and repetition in programs.	Programming – understanding control structures such as sequencing (step-by-step code), selection (IF/THEN/ELSE) and repetition (looping).
To use logical reasoning to explain how algorithms work.	Logical reasoning – explaining why programs respond in the way they do and how to troubleshoot problems when programs behave unexpectedly.

The Computing Curriculum

Where the knowledge and understanding developed in this unit fits into the computing curriculum is outlined in the table below:

Prior Learning	Future Learning
EYFS Unit: Paint software	Year 6 Unit: Power BI
EYFS Unit: Unplugged pictograms and branching databases	Year 6 Unit: Communicating and collaborating
Year 1 Unit: Digital images	
Year 1 Unit: Introduction to data	
Year 2 Unit: Word processing	
Year 2 Unit: Introduction to presenting data	
Year 3 Unit: Presentations	
Year 3 Unit: Introduction to spreadsheets	
Year 4 Unit: Spreadsheets	
Year 4 Unit: Search engines	
Year 5 Unit: Systems and searching	
Year 5 Unit: Surveying data	

Cross-curricular links and extension activities

This unit provides opportunity for cross-curricular links in literacy as well as other subjects. Students will develop their skills in planning, drafting and evaluating work. They will develop spoken language skills through discussion and presentation. Students will develop skills in reading for meaning critically assessing text. Through links with PSHE students will explore how technologies affect life and understand digital responsibility and ethical use of technology.