

CONNECTING COMPUTERS – OVERVIEW

Overview

This unit will develop students' understanding of networks, communication, and data transfer between computers. They will develop an understanding of computer networks including the internet and how they can provide multiple services. Students will learn how to use technology safely, respectfully and responsibly. They will deepen their understanding of logical reasoning explaining how simple algorithms work and how to detect and correct errors.

In this unit, students will learn what a network is. They will develop their understanding of how computers connect. Students will learn how data travels between computers and how devices work together. Students will also learn about how to stay safe on a network.

National Curriculum

Knowledge and understanding	Computing concepts
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 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 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 Illuminate's computing curriculum is outlined below:

Prior Learning	Future Learning
EYFS Unit: Using a computer	Year 4 Unit: Search engines
Year 1 Unit: Mouse skills, typing and saving	Year 5 Unit: Systems and searching
Year 2 Unit: Parts of a computer	Year 6 Unit: Communicating and collaborating

Cross-curricular links and extension activities

This unit provides opportunities for cross-curricular links in English through speaking and listening, PSHE understanding the parallels between how computers 'communicate' and people communicate and work together and Science exploring how signals in Wi-Fi are like waves in sound/light.