

## Computing Curriculum Map 2024 – 2025

### Aims

Pupils to be aware of the possibilities and implications of technology use. Pupils to be able to plan and develop programmes and products using key computational skills. Pupils to develop the skills to be computational thinkers, using problems solving and logical thinking skills. Pupils will be resilient creators, able to analyse and debug programmes. Pupils to be prepared for the future and future technologies.

### NCCE curriculum

#### Key Concepts

Algorithms and Programming

Computing Systems, Networks and Impact of Technology

Data and Information

Design and development, creating Media and effective use of tools

Safety and Security

### Year 7

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Concept	Design and development, creating media and effective use of tools	Computing Systems, Networks and Impact of Technology	Algorithms and Programming	Data and Information	Algorithms and Programming	Design and development, creating media and effective use of tools
Unit Title	Clear Messaging in Digital Media	Networks: Semaphore to the Internet	Programming: Introduction to Scratch	Modelling Data using Spreadsheets	Programming: Developing Scratch	Using Media: Gaining Support for a Cause
Year 7	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>• How to use the internet safely</li> <li>• How to search effectively and safely</li> <li>• How to evaluate media products</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>• How to define computer networks</li> <li>• How data is communicated across networks</li> <li>• How different types of</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>• How sequencing is used in programming</li> <li>• How to use sequences and variables in programming</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>• The features of a spreadsheet (revision)</li> <li>• Formatting techniques</li> <li>• How to use formulas for calculations</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>• The role of subroutines in programming</li> <li>• How to use condition-controlled iterations in programming</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>• How to use the technology safely</li> <li>• How to select software to complete a task efficiently</li> </ul>

	<ul style="list-style-type: none"> <li>• How to plan and create a media product</li> <li>• The role of branding in advertising</li> <li>• How to develop content for media products</li> <li>• How to present ideas clearly and effectively</li> </ul>	<ul style="list-style-type: none"> <li>hardware and network are used</li> <li>• How the internet works as a network</li> <li>• How the internet provides services</li> <li>• How to describe the components of the internet</li> </ul>	<ul style="list-style-type: none"> <li>• How to use selection in sequencing in Scratch</li> <li>• How to use operators in a sequence in Scratch</li> <li>• How to use count control iterations in Scratch</li> <li>• How to design a programming construct to solve a problem</li> </ul>	<ul style="list-style-type: none"> <li>• How to collect data efficiently</li> <li>• How to use complex functions in spreadsheets</li> <li>• How to use selection functions within spreadsheets</li> <li>• How to use conditional formatting in a spreadsheet</li> </ul>	<ul style="list-style-type: none"> <li>• How and when to apply different types of iteration in programming</li> <li>• Describe, identify and use lists within programming</li> <li>• How to decompose problems and find solutions using programming</li> </ul>	<ul style="list-style-type: none"> <li>• How to format documents effectively</li> <li>• How to use images and the role of licensing</li> <li>• How to evaluate and use sources</li> <li>• How to research and plan a task</li> <li>• How to design an effective media product</li> <li>• How to evaluate an effective media product</li> </ul>
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