



Wheeler's Lane Primary School Curriculum Concepts and Knowledge Journey

STEM Faculty: Computing

The building blocks of learning. Our concepts stem from our whole school curriculum intent and thread through our entire school curriculum.

Strand	Year 4			Year 5			Year 6		
Focus	Databases	Spreadsheets	Programming: animation	Persuasive powerpoint presentation	Programming: making games	Understanding the Internet	Game On	History of Computing	Making a yearbook
Key Question	How are databases useful for companies?	How can spreadsheets save us time?	Are computer programs a good method of explaining a concept (food chains)?	What are the design features to consider?	Should kids be playing computer games or designing them?	What services does the Internet provide?	Why is it important to consider your audience when designing games?		
Concept 1 Heritage (Birmingham)									
Concept 2 Communication	How databases help companies efficiently contact customers		Benefits of open-source (sharing code to all)	Importance of font and colour	How are games different now they are online?				
Concept 3 Powerful Stories				Marketing of major brands		4 years to reach 50 million users (TV 13 years, radio 38 years)			
Concept 4 Sustainability, Rights and Responsibilities	GDPR rights for customers		Why not copywrite code you have created?	Responsibilities when digital marketing	How to promote sustainability through game design	Is online access a right?			
Concept 5 Creativity and Enrichment					Making an enjoyable game				
Concept 6 Me - now and in the future					What is it like being a professional computer programmer?				
Subject area 1	Understanding technical database vocabulary	Understanding technical database vocabulary	Design, write and debug programs that accomplish specific goals	Use and combine a variety of software to create a range of content that accomplish given goals.	Use selection in my programs	Understand computer networks including the internet	Use repetition in my programs		

Subject area 2	Designing a data collection sheet	Create formulae to carry out calculations	Use logical reasoning to explain how simple algorithms work	Understand computer networks including the internet and the opportunities they offer for communication and collaboration.	Understands the term inputs – and that they can trigger an event	Know that the internet provides many services (such as the Worldwide Web)	Work with a variety of inputs and outputs		
Subject area 3	Sorting information from a database to answer specific questions	Create formulae to answer problems	Detect and correct errors in algorithms and programs	Use and combine a variety of software to create a range of content that accomplish given goals.	Understand that variables are needed to create a game with a score	Opportunities offered by the Internet for communication and collaboration	Correct algorithms and programs		