WHCS Computing Curriculum

KS1 Year 1 & 2	Cycle 1	Cycle 2
Autumn 1	Online Safety **Computing systems and networks – technology around us** Recognising technology in school and using it responsibly	Online Safety **Computing systems and networks – Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.
Autumn 2	**Data and information: grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Introduction to animation** Designing and programming the movement of a character on screen to tell stories.
Spring 1	Online Safety **Creating media – digital painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally	Online Safety **Creating Media – digital photography** Capturing and changing digital photographs for different purposes.
Spring 2	**Creating media – digital writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Creating Media – making music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.
Summer 1	**Programming Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes	**Data and information: pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.
Summer 2	**Programming A – Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions.	**Programming B – An introduction to quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

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LKS2 Year 3 & 4	2022-23	2023-24
Autumn 1	Online Safety **Computing systems and networks – connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks	Online Safety **Computing systems and networks – The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.
Autumn 2	**Drawing & Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Data and information – data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.
Spring 1	Online Safety **Creating media – audio editing** Capturing and editing audio to produce a podcast, ensuring that copyright is considered	Online Safety **Photo Editing** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.
Spring 2	**Sequence in music** Creating sequences in a block-based programming language to make music	**Creating media - Animation** Capturing and editing digital still images to produce a stop-frame animation that tells a story.
Summer 1	**Events and actions** Writing algorithms and programs that use a range of events to trigger sequences of actions	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.
Summer 2	**Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.	**Branching databases** Building and using branching databases to group objects using yes/no questions.

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UKS2 Year 5 & 6	2022-23	2023-24
Autumn 1	Online Safety **Computing systems and networks – sharing information** Recognising IT systems around us and how they allow us to search the internet.	Online Safety **Computing systems and networks – Communication** Identifying and exploring how data is transferred and information is shared online.
Autumn 2	**Web page creation** Designing and creating web pages, giving consideration to copyright, aesthetics, and navigation	**Video editing** Planning, capturing, and editing video to produce a short film.
Spring 1	Online Safety **Variables in games** Exploring variables when designing and coding a game.	Online Safety **Data and information – flat files databases** Using a database to order data and create charts to answer questions
Spring 2	**3-D Modelling** Planning, developing, and evaluating 3D computer models of physical objects.	**Spreadsheets** Answering questions by using spreadsheets to organise and calculate data.
Summer 1	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.
Summer 2	**Programming B - sensing** Designing and coding a project that captures inputs from a physical device.	**Physical Computing** Exploring conditions and selection using a programmable microcontroller.

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