Highfields Primary School **Whole School Computing Overview**

	F1	F2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing Systems and Networks	I can talk about different digital devices. I can find my way around a tablet. I can use a touchscreen to open and close apps. I can listen to and play digital stories. I can use pretend technology in my role play	I can ask questions about different digital devices. I can log into a tablet. I can use technology to help me learn about the world. I can find the letters of my name on a keyboard. I can answer questions about what I am doing with a range of technology.	**Technology around us** Recognising technology in school and using it responsibly.	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	**The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	**Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet.	**Communication and collaboration** Exploring how data is transferred by working collaboratively online.
Creating Media	I can take a photograph. I can make music on a tablet.	I can talk about what I am doing on the tablet. I can record my voice on a digital device. I can use a digital device to make pictures, videos and music.	**Digital painting** Choosing appropriate tools in a program to create art and making comparisons with working non-digitally.	**Digital photography** Capturing and changing digital photographs for different purposes.	**Stop-frame animation** Capturing and editing digital still images to produce a stop-frame animation that tells a story.	**Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**Video production** Planning, capturing, and editing video to produce a short film.	**Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.
Programming (Algorithms)	I can make toys work using buttons/switches. I can follow a simple algorithm/pattern, I can put simple instructions in order. I can create a sequence of instructions.	I can operate toys and equipment independently. I can plan a route for a friend or Beebot I can code a Beebot to go to a certain place.	**Moving a robot** Writing short algorithms and programs for floor robots and predicting program outcomes.	**Robot algorithms** Creating and debugging programs and using logical reasoning to make predictions.	**Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Variables in games** Exploring variables when designing and coding a game.
Data and Information	I can use a pictogram to help me answer questions.	I can count, sort and group information on an tablet.	**Grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Robot algorithms** Creating and debugging programs and using logical reasoning to make predictions.	**Branching databases** Building and using branching databases to group objects using yes/no questions.	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.
Creating Media (Design and Development)	I can complete a Paint Project on an art app.		**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Digital music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Photo editing** Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled.	**Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects.	**3D modelling** Planning, developing, and evaluating 3D computer models of physical objects.
Programming (Design and Development)	I can persevere. I can explore how things work.	I can work with a partner to solve a problem. I can think logically about a problem.	**Programming animations** Designing and programming the movement of a character on screen to tell stories.	**Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.	**Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.	**Sensing movement** Designing and coding a project that captures inputs from a physical device.