Computing Skills, Knowledge and Vocabulary Progression

Year 6

	Autumn 1
Vocabulary 6:1 Coding (6 Weeks)	**Action** **Alert** **Algorithm** **Bug** **Code Design** **Command** **Control** **Debug/Debugging** **Event** **Function** **Get Input** **If (command)** **If/Else** **Input** **Output** **Object -** **Repeat** **Sequence** **Selection** **Simulation** **Tabs** **Timer** **Variable**

Knowledge 6:1 Coding (6 Weeks)	To know how to design programs using their choice of objects, attributing specific actions to each using their new programming knowledge. Children can plan a program before coding to anticipate the variables that will be required to achieve the desired effect. Children can debug when things do not run as expected. To know how to use functions and understand why they are useful in 2Code. To know to organise code into functions and Call functions to eliminate surplus code in the program. Children can explain what functions are and how they can be created and labelled in 2Code. Children can explain how to move code from one tab to another in 2Code. Children can explain how they organised code in a program into functions to make it easier to read. Children can attribute variables to user input. Children are aware of the need to code for all possibilities when using user input. To know how to create a simulation of a room in which devices can be controlled. Children know how to follow through the code of how a text adventure can be programmed in 2Code. Children know how to adapt an existing text adventure to make it unique to their requirements.
Skills 6:1 Coding (6 Weeks)	To use variables within a game to keep track of the properties of objects. Children can follow through plans to create the program. Children can code programs that take text input from the user and use this in the program. To can debug a program and organise the code into tabs. To use flowcharts to test and debug a program. Children can follow flowcharts to create and debug code. Children can create flowcharts for algorithms using 2Chart. Children can be creative with the way they code to generate novel visual effects.
	Autumn 2
Vocabulary 6:2 Online Safety (3 weeks)	**Digital footprint** **Password** **PEGI rating** **Phishing** **Screen time** **Spoof website**

Knowledge	I know the benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location. I can identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon. I know the benefits and risks of giving personal information and device access to different software. Children know how to protect their digital footprint, where to go for help, smart rules and security software. To know the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. To know what constitutes appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. To begin to understand how information online can persist and give away details of those who share or modify it. Children understand how what they share impacts upon themselves and upon others in the long-term. Children know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander. To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health. Children can give reasons for limiting screen time.
Skills	To identify the positive and negative influences of technology on health and the environment.
	Spring 1
Vocabulary 6:3 Spreadsheets (5 weeks)	**Average** **Advance mode** **Copy and Paste** **Columns** **Cells** **Charts –** **Count (how many) tool** **Dice** **Equals tool** **Formula** **Formula Wizard** **Move cell tool** **Random tool**

	Rows **Spin Tool** **Spreadsheet** **Timer**
Knowledge 6:3 Spreadsheets (5 weeks)	Children know how to create a spreadsheet to answer a mathematical question relating to probability. Children know how to use the formula wizard to create formulae Children know how to make practical use of a spreadsheet to help plan actions. Children can use a spreadsheet to model a real-life situation and come up with solutions that can be applied to real life.
Skills 6:3 Spreadsheets (5 weeks)	Children can take copy and paste shortcuts. Children can problem solve using the count tool. Children can create a machine to help work out the price of different items in a sale. Children can use a spreadsheet to solve a problem
	Spring 2
Vocabulary 6:4 Blogging (5 weeks)	**Audience** **Blog** **Blog page** **Blog post** **Collaborative** **Icon**
Knowledge 6:4 Blogging (5 weeks)	To know the purpose of writing a blog. Children understand how a blog can be used as an informative text. Children understand the key features of a blog. To understand how to write a blog. To consider the effect upon the audience of changing the visual properties of the blog. Children understand that the way in which information is presented has an impact upon the audience. Children understand that blogs need to be updated regularly to maintain the audience's interest and engagement.

	Children understand the approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying. Children know how to assess the effectiveness and impact of a blog.
Skills 6:4 Blogging (5 weeks)	To identify the features of successful blog writing. Children can work collaboratively to plan a blog. Children can post comments and blog posts to an existing class blog. Children can comment on and respond to other blogs.
	Summer 1
Vocabulary 6:5 Text Advertures (5 weeks)	**Text-based adventure** **Concept map** **Debug -** **Sprite** **Function**
Knowledge 6:5 Text Advertures (5 weeks)	Children can describe what a text adventure is. Children know how to split their adventure-game design into appropriate sections to facilitate creating it. Children can map out an existing text adventure. Children can contrast a map-based game with a sequential story-based game. Children make logical attempts to debug their code when it does not work correctly.
Skills 6:5 Text Advertures	Children can map out a story-based text adventure. Children can use 2Connect to record their ideas. Children can use the full functionality of 2Create a Story Adventure mode to create, test and debug using their plan Children can create their own text-based adventure based upon a map. Children can use coding concepts of functions, two-way selection (if/else statements) and repetition in conjunction with one another to code their game

(5 weeks)	
	Summer 2
Vocabulary 6:6 Networks (4 weeks)	Internet World Wide Web Network Local area network (LAN)- A Wide area network (WAN) Router Network cables Wireless
Knowledge 6:6 Networks (4 weeks)	Children know the difference between the World Wide Web and the internet. Children know about their school network. Children have considered some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult.
Skills 6:6 Networks (4 weeks)	Children have researched and found out about Tim Berners-Lee.
Vocabulary 6:7 Quizzing	**Audience** **Collaboration** **Concept map**

(4 weeks)	**Database** **Quiz**
Knowledge 6:7 Quizzing (4 weeks)	To know how to create a picture-based quiz for young children. Children have considered the audience's ability level and interests when setting the quiz Children understand the different question types within 2Quiz. Children have ideas about what sort of questions are best suited to the different question types. Children have chosen an appropriate Text Toolkit tool to make their own grammar game.
Skills 6:7 Quizzing (4 weeks)	Children have used the 2DIY activities to create a picture-based quiz Children have designed their own quiz based on one of the 2Investigate example databases. Children have used their knowledge of quiz types to create a quiz show quiz based on a curriculum area.