



	Essential concepts and skills to be taught	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Knowledge progression <u>across</u> subjects in the year group	Progression of knowledge and skills <u>across year groups</u>
R	Knowledge: Instructions What is a keyboard and mouse Skills: Giving and following instructions Navigate log in and launching application of choice Key people: Vocabulary: Keyboard Mouse Password Instruction Internet information Link to Wokingham Computing Curriculum	Computer Science - coding Beebots practical (explore time) Assessment question: Can you select the correct buttons to make the beebot move?	Digital Literacy Keyboard and mouse skills Assessment question: Can you log in successfully and select a program of choice?	Information Technology – Digital imagery Using ipads to find a number of pictures to represent current topic. Print picture and label. Assessment question: Can you launch app and take an appropriate image?	Information Technology Multimedia Use voice recorders to record story telling or a descriptive walk of a school trip Assessment question: Can you use the equipment to record appropriate information about the topic?	Computer sciences Programming Children move their peers around a course to understand the need for clear instructions. Create an objective for beebot to achieve – going to a particular place or in a square. Assessment question: Can you provide clear instructions for your peer to achieve selected goal?	Information technology Music and Sound Purple mash 2 explore. Select music and record. Assessment question: Can you find, select and play an appropriate sound?	Introduction to ICT Raising awareness of possibilities within ICT	YR ICT linked to EYFS framework: ELG - Listening and attention, speaking instructions, moving and handling, exploring media and being imaginative.
	Online safety Digital Literacy Project Evolve Skills: Understand how to deal with inappropriate content	Self-image /identity/ health: What can I do when I feel sad, embarrassed or upset? What are our online safety rules?	Online reputation How can I safely put information on the internet?	Online relationships: How can I use technology to communicate with people I know?	Online bullying: How are people unkind online? How does it make people feel?	Managing online information How can I use the internet to find things out? What devices can I use?	Privacy/ security/ ownership: What is my personal information? Who can you trust?	Increased knowledge and confidence of having an online presence.	



1	Knowledge: Language of coding Excel function Multimedia choices Skills: Problem solving Writing clear instructions Inserting graphics and sound Publishing work online Safe online behaviour Key people: TickTackToys Vocabulary: Code Data Graphics Multimedia Data Link to Wokingham Computing Curriculum	Computer Science - coding Espresso coding level 1 On the move Assessment question: Can you execute a program by using simple instructions?	Data Handling Information Technology PurpleMash Task - 2Investigate (using existing database to manipulate charts) Records, fields, data. Using records to organise data. 2count – creates graphs using data Assessment question: Can you select appropriate tools to create a graph or chart to answer questions?	Information Technology – digital imagery create a story Purple mash - create a story adding text and sound to graphics Assessment question: Can you add text and sounds to graphics?	Information Technology Multimedia Purple mash 2Publish Create a wanted poster for a character in a story or topic – can be cross curricula Assessment question: Can you use a template to create a multimedia presentation or print out ? Introduce touch typing – 2 type 5 mins at start of each lesson	Computer Sciences Programming Beebots direction and turns. Navigate a course, following simple instructions. Use mats and challenge cards. Assessment question: Can you create a series of instructions to move an object for devices in the classroom and talk about how devices need instructions?	Information technology Music and Sound Purplemash 2beat recreate a nursery rhyme – link for resources Assessment question: Can you create musical phrases that link to a topic currently being studied?	Using ICT for a specific purpose.	Progression from YR Understanding what a clear instruction is to being able to use instructions to solve problems. Creative manipulation of graphics and sound for completion of a task. Being safe online and identifying inappropriate content and knowing how to react.
	Online safety Digital Literacy Project Evolve Skills: Understand how to deal with inappropriate online content Identify the online safety rules	Self-image and identity: Who can help you if you are upset by someone online?	Online relationships: Why should we be kind and considerate online?	Health/ wellbeing: What are the rules for using technology safely?	Online bullying: How can we avoid upsetting others online?	Managing online information How can we find information online safely?	Privacy/ security/ ownership: What is personal information?		



2	Knowledge: Coding language. Database data manipulation. Microsoft office. Beebot manipulation. Scratch Skills: Refine search terms Analyse Online reputation Communicate ideas Use graphics and sound in various multimedia packages. How to manipulate them for desired effect. Identifying correct software for the task. Key people: Ryan Kaji Vocabulary: Input Output Graph Publish Presentation Data Information Records field Link to Wokingham Computing Curriculum	Computer Science - coding Espresso coding level 2 Different types of input Assessment question: Can you input instructions in a variety of ways, including using the keyboard?	Data Handling Information Technology PurpleMash Task - 2Investigate (using existing database to manipulate charts) 2count Assessment question: Can you use graph to plot and answer appropriate questions about the data?	Information Technology – digital imagery 2 publish Purple mash - create a book telling the life and times of a historical figure (Boudicca?) Assessment question: Can you publish the book and share it online?	Information Technology Multimedia Powerpoint Create a presentation including images, sound and animation using different templates for appropriate uses Assessment question: Can you choose appropriate layouts and templates fit for purpose and enhance it with images?	Computer Sciences programming Beebots – on floor using direction cards. Design a maze for the beebot. Half class on floor and half class on laptops	Computer sciences coding Scratch – using the keyboard to input code Assessment question: Can you look at a simple line of code and predict what the code might do – then debug it to make it work?	Using more complex ICT to create more indepth and complicated programs.	Progression from Y1 Becoming more accurate and precise with inputting. Being more aware of the best way to complete a task, trial and error opportunities to keep improving on task. Using more complex code instructions to create more complex programs. Being able to collect and store data accurately and safely and manipulte it for desired effect/task. Publishing and staying safe online. Understanding how to maintain your online reputation.
	Online safety Digital Literacy Project Evolve Skills: Understand online image and identity Understand how to safely interact online	Self-image and identity: How can my online identity be different to my identity in real life?	Online relationships: How can I communicate with people I don't know well?	Online reputation What do I do if I make a mistake with what I post online?	Online bullying: How can I get help if someone is being bullied?	Managing online information Why is some information online not true?	Privacy/ security/ ownership: Why are passwords important?	Understanding what to do if something goes wrong when publishing online and what an online identity is.	



3	Knowledge: Code language Database data input Text editing Sound creation Image manipulation Skills: . Sequencing animation . collect, interpret and manipulate data . publish work safely and securely Key people: Mr Beast youtuber Dan TDM Vocabulary: Animation Sequence Geometric Manipulate Multimedia Upload Save edit Link to Wokingham KS2 curriculum	Computer Science - coding Espresso coding level 3 sequence and animation Assessment question: How can you make an item move using a sequence?	Data Handling Information Technology Edit avatar in PM PurpleMash Task - 2Investigate (using existing database to manipulate charts) Assessment question: Can you understand that creating and organising your own information can help you to answer questions? Creation of Year 3 database in 2 investigate prior to lesson	Information Technology – digital imagery Colour magic – create pictures using different geometric shapes. For computing display Assessment question: Can you select, manipulate and combine images to complete a task?	Information Technology multimedia Create a promotional video about the school, watch the SDS website one for inspiration. Assessment question: Can you use your multimedia skills to create and improve your movie following peer evaluation?	Information Technology – word, typing and multimedia Edit text in a poem Then 2create in purplemash to create a story. My story, image Assessment question: Can you explain how to use the if conditional code and how coding is used in the world around us?	Information Technology – music and sound Music and sound Purplemash 2 beat. Create music, share on noticeboard (edit and approved by teacher) 2sequence give them a genre or a feeling to inspire. (link to lesson topic). Add words to it by typing in word. Assessment question: Can you select appropriate sound files to create a piece of music and then upload them to the internet?	Adding more complexity to coding. Investigating a range of ICT systems to complete tasks in a variety of ways.	Progression from Y2 Increasing complexity of codes, introducing variables. Using data collected to analyse and answer questions. Increased use of more complex multimedia tools. Understanding accuracy and ownership of content and impact that has on your online reputation.
	Online safety Digital Literacy Project Evolve Skills – . Safe online behaviours . Understanding accuracy of information . Understanding ownership	Self-image and identity: How can I represent myself in different ways online?	Online relationships: Why should I be careful who I trust? What information can I share?	Online reputation How can I be careful before I share anything about myself or others?	Online bullying: What rules should I follow? How do they prevent bullying?	Managing online information What is the difference between a belief, and opinion and a fact?	Privacy/ security/ ownership: Why is it important to only share information with people I choose to and trust?	Being aware of the impact of what you share online to your real-life self.	



4	Knowledge: Understanding what a variable is. Database inputting Publisher Flowol coding Skills: . Communicate ideas . Publish considered pieces of work . Using variables for coding 'if statements' Create charts and graphs from data to answer questions . Create, edit and publish video Key people: Mark Zuckerberg Jack Dorsey Elon Musk Vocabulary: Coding Database Spreadsheet Digital images Media Debug Evaluate Algorithm Parameter value Link to Wokingham KS2 curriculum	Computer Science - coding Espresso coding level 4 introduction to variables Assessment question: Can you use variables in coding to count scores and keep a record?	Data Handling Information Technology PurpleMash Task - 2Investigate (using existing database to manipulate charts) Assessment question: Can you understand the difference between a database and spreadsheet and the importance of entering data correctly?	Information Technology – digital imagery Colour magic – to design wall paper for bedroom, then kidrex for inspiration and create a mood board in publisher. Assessment question: Can you combine and evaluate digital images appropriate for the audience?	Information Technology Multimedia Purple mash Photostory 2 Create a video about themselves, interests, hobbies etc. Assessment question: Can you select the appropriate media, recognise key features, import sounds, video clips and graphics and amend and improve your work following peer evaluation?	Computer Sciences programming Flowol 4 (desk top icon), outputs and inputs. Solving open ended tasks by using repeats and loops then debug their own code. Assessment question: Can you create, test, save and edit code that allows an onscreen object to carry out a specific task?	Information technology Music and Sound Create a theme tune for the book they are studying in English, Purplemash 2 Assessment question: Create a piece of music, evaluate and improve their work and then upload it to the internet.	Increasing complexity and knowledge of a range of systems used to create more complex, creative and professional outcomes for task.	Progression from Y3 More indepth knowledge of data manipulation. Independent thought on creation of images and media. Use of keyboard to input code phrases to create imagery.
	Online safety Digital Literacy Project Evolve Skills: Safe online identity Healthy online relationships	Self-image and identity: Can you describe the right decisions about how you interact with others and how	Online relationships: What strategies are there for safe and fun experiences in a range of online social environments?	Online reputation How can others find information about me by looking online?	Online bullying: How and where can online bullying take place?	Managing online information Can you analyse information differentiating between opinions, facts and beliefs?	Privacy/security/ownership: Why and how do you keep personal information private? When do I have the	More detailed view on privacy and your right to share or not.	Developing a deeper understanding of being online and healthy and productive ways to interact.



		they perceive you?					right to reuse information?		
5	Knowledge: Using co-ordinates in coding challenges. Creation of excel database and formulae. Scratch Image manipulation Scratch language Skills: Building a sequence of complex instructions Explain the function of code Understand the need for responsible use of online devices Understand personal safety Key people: Alan Turing Bill Gates Vocabulary: Coordinates Hyperlinks Complex search Conditional command Manipulate Decomposed Procedures Subprocedures loop Link to Wokingham KS2 curriculum	Computer Science - coding Espresso coding level 5 speed direction and coordinates Assessment question: Can you use numbers in code to represent speed and movement accurately?	Data Handling Information Technology Excel – create a class database eg. Favourite (food, author, hobby etc) in a class. Resources for spreadsheets in ICT suite. Assessment question: Can you successfully use complex searches for data within a database?	Information Technology – digital media Powerpoint – using class database created create a powerpoint to display the information collected include graphs, images links etc. Assessment question: Can you create a range of hyperlinks to produce a non linear presentation, including the use of sound and effects.	Information Technology Multimedia Purple mash 2paint and publisher to publish, William Morris theme pattern creation Assessment question:	Computer sciences programming MSW logo (icon on desktop) create artwork based on current topic in class. MSW resources tray. Quick run through Training required Display opportunity Debug prepared code and work with conditional commands. Assessment question: Can you build a sequence of instructions to control a device and explain the outcome?	Computer Sciences Programming Scratch manipulate a sprite to recreate a scene from the school play or chapter of their current book. Assessment question: Can you build code to create a game using decomposed code broken into smaller parts by using procedures and sub-procedures?	Increasing complexity and knowledge of a range of systems used to create more complex, creative and professional outcomes for task with a deeper knowledge of coding capabilities.	Progression from Y4 Adding more complexity to coding, increase use of speed and direction. Creation of the class database rather than using a database already populated, including use of formulae to auto populate cells. Creation of a non-linear powerpoint with connecting links to aid navigation.



	Online safety Digital Literacy Project Evolve Skills: Understand the risks of communicating and publishing within and outside school.	Self-image identity/ health How can my identity be copied/modified /altered. How can technology affect sleep and lifestyle?	Online relationships: How can I explain that people might communicate with me online but may want to do me harm?	Online reputation How can I search and use people's information online?	Online bullying: How can I get help, block and report online abusive users?	Managing online information How can I understand the difference between misinformation and disinformation?	Privacy/ security/ ownership: How can I manage my privacy when using apps and services?	Analysing what you see online to protect you from harm.	Understanding how to interact safely online and the differences between doing this inside school network and in public spaces.
6	Knowledge: Properties of objects Formatting Publishing Scratch language Skills: Use knowledge of more complex code Understand search engine technologies Ability to understand and debug code. Key people: Steve Jobs Tim Berners -Lee Vocabulary: Variables Formatting Formula Properties Promotional Procedure Sequence Link to Wokingham KS2 curriculum	Computer Science - coding Espresso coding level 6 More complex variables and object properties Assessment question: Can you use variables to manipulate inputs to create more useful outputs?	Data Handling Information Technology Excel – copying information and formulas including formatting excel sheets Link to input data Assessment question: Can you use formulae in a spreadsheet to plan and model a variety of events?	Information Technology – digital media Use ipads to take pictures around the school and use publisher to create a promotional leaflet about the school. Assessment question: Can you choose appropriate tools and techniques to create imagery for a specific task?	Information Technology Multimedia Create a promotional Powerpoint presentation for reception buddy about themselves including pictures, sound and links etc NOT a linear ppt Assessment question: Can you choose and use a range of software appropriate to the task and communicate your ideas effectively?	Computer sciences programming Flowol or Scratch for complex procedures Design, write and debug programs that accomplish specific goals controlling physical systems. Assessment question: Can you build a sequence of instructions to control a device, app or game which has inputs and outputs?	Computer Sciences Coding Python in espresso coding (Discovery education – block coding – Python – level 6) Click on video and work through tasks. Can advance to HTML accessed through https://coding-app.discoveryeducation.co.uk/?locale=en-gb Assessment question: Can you use variables in code effectively and logically explain how the algorithms work?	Increasing complexity and knowledge of a range of systems used to create more complex, creative and professional outcomes for task including analysing and debugging complex code.	Progression from Y5 Increased complexity of code used. Increased complexity of the database and formatting used. More polished and professional use of presentations and promotional information. Debugging programs as would happen in real world.



Online safety Digital Literacy Project Evolve Skills: Understand the implications of being a responsible member of a connected community.	Self-image and identity: How does media shape ideas about gender?	Online relationships: What are my responsibilities when using social media? How can I build a positive reputation?	Online bullying: How can I share bullying concerns with others?	Managing online information: How can I filter and evaluate online content?	Managing online information How can I regulate the use of technology on my health?	Privacy/ security/ ownership: How can I increase privacy on apps and services online?	Increased awareness of online presence on mental wellbeing.	Deeper knowledge of how online presence and interactions can be interpreted.
---	---	--	--	--	---	--	---	---

CST links in the curriculum are indicated in purple (sustainability/care for creation also in purple)

British Values/Democracy links are indicated in red

Cultural Capital link in blue