Coupe Green Primary School
Computing Curriculum Progression Map

Intent - At Coupe Green, our aim is to provide a computing curriculum which provides children with the necessary skills to embrace and utilise new and existing technology in a safe and responsible way. We want our pupils to have the fundamental skills required to succeed in their future education whilst also understanding the principles of computer science and computational thinking. We also believe our children should be able to analytically solve computational problems, communicate in a digitally literate world and become competent and confident users of information technology.

Year Group	Knowledge	Skills	Vocabulary	Resources	Programs
EYFS	**Preschool** -To be able to tell a trusted grown up when something makes you feel sad or scared. -To know that technology is used for a purpose. -To begin to explore technology safely. **Reception** **Online Safety** - To know what to do if something you see on a screen upsets you. - To know that it is important to be kind when using technology. - To know that we can use computers to share information. - To know how to operate simple equipment.		computer screen device share equipment	iPads Interactive Whiteboard Easi Cameras (Blue) Walkie Talkie Headsets Remote control cars Talking Pegs	
Year 1	**Online Safety** - To understand what 'personal information' is. **Basic Skills** - To know what a file is. - To know that there are different types of technology in and out of school. - To know how technology can be used to find information. - To understand how keyboards are used for typing and internet searches. **Programming** - To know the directions ← ↑ → ↓ and 90° turns. - To know what an algorithm is. - To know that debugging is spotting a mistake in a simple set of instructions. - To understand start, stop and go commands.	**Online Safety** - To explain why it is important to keep passwords private. - To explain some of the risks of communicating online with others I don't know well. - To explain how using technology can distract me from other things. **Basic Skills** - To open a file by following an adult's instructions. - To find and type using letters on a keyboard. - To perform a simple search to find information. **Programming** - To write a simple one entry algorithm using ← ↑ → ↓ and turns to move (humans and devices). - To describe what happens when you press buttons on a robot. - To predict what will happen when buttons on a robot are pressed. - To control and use simulations. - To spot mistakes in a set of instructions (debug). - To locate, open and close the Bee-Bot app.	personal information private open text image file search algorithm forwards backwards left right turn 90° debug simulation start / stop / go program app keyboard	Bee-Bots Bee-Bot mats iPads Laptops Easi Cameras (Blue) Walkie Talkie Headsets Acceptable Use Policy class rules Easi speak microphones KS1 keyboards (x4)	Bee-Bots Bee-Bot app (iPad) Pic Collage Camera on iPads Swiggle - Child friendly search engine Scratch Junior

	- To understand how commands given to robots result in their movement. **Multimedia** - To know how to create text and images using technology.	**Multimedia** - To create text and images (with support). - To record sound files (with support). - To take photos using a range of devices.	arrow spacebar	digital microscopes Talking Pegs Headphones	
Year 2	**Online Safety** - To understand the importance of computers and communicating online. **Basic Skills** - To know how to perform a simple internet search by following links. - To know what a file is used for. - To recognise the icons for save and close. **Programming** - To know the directions ← ↑ → ↓ and turns 90° and 180° - To understand use of the commands fd, rt, lt, bk for movement. - To know an algorithm is a set of instructions. - To understand how algorithms are used to give robots and devices instructions for movement. - To know what a variable is. - To know what debugging is. **Multimedia** - To know that a presentation can be a film, audio and images.	**Online Safety** - To explain why we keep personal information and passwords private. - To recognise the difference between real-life and online friends. - To describe ways technology can affect healthy sleep. **Basic Skills** - To open, save and close a file (with support). - To close a window by pressing X in the corner. - To make digital content using a simple program. - To type words using letters on a keyboard. - To do a simple internet search and follow links to websites. **Programming** - To write a simple algorithm using fd, rt, lt, bk to make objects move. - To alter an algorithm using variables. - To check for errors in an algorithm. - To predict the outcome of an algorithm. - To be able to erase an algorithm. **Multimedia** - To use a gallery to select appropriate photos. - To delete a photo from a gallery. - To search for images by following links. - To insert an image into a program (e.g. Pic Collage). - To type words to be added to a presentation. - To record sound files using microphones.	internet communicate website text image file create store retrieve presentation movie/film audio fd, rt, lt, bk 90° 180° commands algorithm debug	iPads Laptops Bee-Bots Blue-Bot Bee-Bot mats Bee-Bot activity cards Car-Bot (x1) EasiSpeak microphones Acceptable Use Policy class rules Bird Box Camera KS1 keyboards (x4) digital microscopes Headphones	Scratch Junior app Turtle Logo (online free) Swiggle - Child friendly search engine Typing skills (online free) Pic Collage Bee Bot app
Year 3	**Online Safety** - To understand that bullying can occur online as well as in the 'real-world.' - To recognise that not all information online is trustworthy. **Basic Skills** - To understand the term focus when taking photos. - To know the purpose of a track pad and a mouse. - To understand the purpose of a search engine. **Programming** - To know how to debug (correct) a problem in an algorithm. - To know how to set distance and angle turns for a control device (e.g. innoBot). **Multimedia** - To explain the stages of creating a stop-motion animation. - To plan, capture and create images, text and graphs to present information.	**Online Safety** - To explain what a 'strong' password is. - To use technology safely and respectfully and keep our information secure (SMART rules). - To identify strategies for limiting the amount of time spent online. **Basic Skills** - To log onto a laptop independently. - To use passwords to log onto secured apps (e.g., bug club, Rockstar Maths etc.) - To use iPads to capture, locate and save photos in a specified place on the network. - To type words on a keyboard with increasing fluency. - To create capital letters with the 'caps lock' key. - To use child friendly search engines for independent research. **Programming** - To plan and write an algorithm. - To sequence programming commands correctly. - To use repeat commands. - To test algorithms and spot problems (debug).	Caps Lock SMART Safe Meet Accept Reliable Tell algorithm debug program animation stop motion capture select locate icon search engine track pad	innoBots green screen digital microscopes iPads Laptops Acceptable Use Policy class rules children's mice KS1 Keyboards (x4) Headphones	iPad Stop-motion App iMovie pic collage innoBot coding app (2D shape drawing) green screen ink Laptops Swiggle - child friendly search engine FE – File Explorer app

		Multimedia - To use programs to present data (graphs). - To add text and images to presentations. - To create stop-motion animations. - To use green screen technology to capture images for presentations.	mouse log on device repeat commands sequence			
Year 4	**Online Safety** - To know different ways of reporting concerns about online content. - To understand that the internet can be tracked and monitored. **Basic Skills** - To recognise icons for open and understand the drop down menu on laptop programs. **Programming** - To know how to write programs by ordering and sequencing commands for a purpose. - To understand how algorithms can be checked and tested to look for mistakes (debugging). **Multimedia** - To know how to plan and create animations to present learning. - To combine images, text and graphs to present information.	**Online Safety** - To evaluate the strength of passwords and suggest ways for improvement. - To develop strategies for verifying the reliability and accuracy of online information. **Basic Skills** - To select and use keywords in a search engine. - To create capital letters using the SHIFT key. - To edit, crop and rotate photos. - To type with increasing fluency and stamina. - To locate, open and edit a saved file then resave. - To use a mouse to manipulate objects on screen (e.g. Stick-man animation on laptops). **Programming** - To independently write algorithms using sequence, repetition and selection. - To debug algorithms. - To use directional commands to control an external device (e.g. innoBots). **Multimedia** - To create stop-motion animations with sound. - To download and save audio files. - Add sound files to a variety of presentations e.g. green screen, iMovie.	edit crop rotate create select open save locate algorithm debug program animation stop motion capture icon manipulate sequence repetition selection commands external device data logger	digital microscopes iPads Laptops Acceptable Use Policy class rules innoBots microphones Headphones	innoBot app Pic Collage app iMovie app Cameras FE (File Explorer) Green Screen Ink Espresso Coding (Year 4) Stick man animations on laptops
Year 5	**Online Safety** - To have an understanding of the term 'digital footprint.' - To understand why some social media platforms have age restrictions. - To understand the term 'copyright.' **Basic Skills** - To understand how a spreadsheet works. - To know how to independently search websites and locate appropriate information and content. **Programming** - To know how to give commands to control external devices. - To understand how algorithms work and detect variables that can be changed. **Multimedia**	**Online Safety** - To explain what to do if a password is lost or stolen. - To identify their own digital footprint. - To use search tools to find and access content that can be used by others (copyright free). - To explain how others online can pretend to be me or other people. **Basic Skills** - To type using two hands. - To locate, open and save files to a specified place on the network. - To insert an image from a selected bank of images. - To copy and paste text. - To develop effective search techniques through use of keywords. **Programming** - To design an algorithm to solve a specified problem (e.g. Espresso Coding). - To use repeat commands to improve a program (e.g. Scratch).	variable network copy paste insert keywords digital footprint 'if' 'then' commands input output logical thinking select repeat manipulate	digital microscopes iPads Laptops Acceptable Use Policy class rules Dash robot microphones	PowerPoint iMovie app Green Screen ink Dance Mat Typing (BBC) Scratch Dash robot app

	- To know how to input audio, data, text, images and graphs within a presentation. - To understand what changes can be made to improve the final outcome.	- To use a variable to increase programming possibilities. - To change an input to achieve a different output. - To use 'if' and 'then' commands. - To detect and correct errors in algorithms using logical thinking. **Multimedia** - To use text, photo, sound and video editing tools to refine my work. (e.g. PowerPoint, iMovie and Green Screen). - To use my knowledge to create content using new programs. - To select, use and combine tools to create an effective outcome. - To evaluate my own and others' work and make appropriate improvements.	external device		
Year 6	**Online Safety** - To understand the positive and negative impact of social media use. - To understand the benefits and risks of sharing information online. **Basic Skills** - To know how to perform focussed searches online to find desired information. - To understand computer networks including the internet and the World Wide Web. - To understand how search results are selected and ranked. **Programming** - To know how to design, write and debug programs. - To understand how algorithms can be improved by changing variables. **Multimedia** - To know how to effectively create presentations using a range of media.	**Online Safety** - To explain the concept of plagiarism. - To explain how online bullying can be different to bullying in the 'real world.' **Basic Skills** - To type using 2 hands fluently. - To save an image from the internet to be inserted into a document (e.g. Word). - To copy and paste text between two documents. - To copy and paste an image from the internet. - To begin to use keyboard shortcuts to copy, paste, save and open. - To enter formulae into a spreadsheet (e.g. Excel). - To conduct advanced searches and explore how to refine web searches through use of keywords and "inverted commas". **Programming** - To solve a problem using prior knowledge of similar solutions. - To explain each step of an algorithm (e.g. Espresso Coding). - To evaluate and improve an algorithm. - To recognise the variable required to achieve the desired outcome. - To debug using logical thinking. **Multimedia** - To combine editing tools to achieve a specific outcome for an audience (e.g. iMovie, PowerPoint, Pic Collage). - To confidently identify the uses of new programs to achieve a particular outcome. - To combine a range of media and tools and recognise the contribution of each one.	formulae spreadsheet advanced search keyboard shortcuts copy (Ctrl+C) paste (Ctrl+V) open (Ctrl+O) save (Ctrl+S) digital footprint variable media device harm validity logical thinking network plagiarism	digital microscopes iPads Laptops Acceptable Use Policy class rules Dash robot Green Screen	Discovery Coding (Year 6) Dash robot app iMovie Green Screen ink app PowerPoint Word Excel Scratch Espresso Coding