

St. Vincent's COMPUTING & ICT Curriculum Map

Class	Algorithms & Programs	Data & Databases	Communicating	Internet	Presentation	E-Safety
Y1	Espresso Coding	Bee-Bot Routes Create a graph	Voice recordings Keyboard 'shift' keys	Print from the internet	Photograph Slide-show	Hector's World Espresso
Y2	Bee-Bots Espresso Coding	Shape tools to draw Bar Charts	Send & reply to an email Word process text	Search & access links	Slideshow with music B / I / U	Hector's World Espresso
Y3	Scratch Espresso Coding	Photo editing Branching databases	e-mail (e-pals) + attachments	Search engines Favourites/Bookmark	PowerPoint	Cyber Café Espresso
Y4	Kodu, Lego Mindstorm Espresso Coding	Capture images Spread sheets	Spell checker Text talk	Tab browsing Download and/or Open	Multimedia (inc animation)	Cyber Café Espresso
Y5	Kodu, Lego Mindstorm Espresso Coding	Excel formulae Search using +< or >	MSM/safe chat rooms e-Twinning	Audio Streams & Podcasts	Website homepage Video/Audacity	Cyber Café Espresso
Y6	App Inventor, Espresso Coding	Data Loggers Create a database	Blogging Skype/oovoo	Complex searches Images/Maps & other	Advanced Multimedia Save-as Gif or jpeg	Cyber Café Espresso
<p>N.B. All pupils will take part in eSafety activities Computing & ICT is to be integrated into each year group's curriculum map to support and facilitated skill development</p>						
Terms	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	Keyboard Skills	Espresso Coding Bee Bots	Espresso Coding	Kodu Espresso Coding	Kodu Espresso Coding	Advanced Multimedia Show
Autumn 2	Espresso Coding Bee-Bots	Internet Search & access links	Search engines Scratch	Lego Mindstorm	Excel & searches	Advanced Internet Searches
Spring 1	Internet Search & print	Bar Charts & text editing	Photo editing Scratch	Spell Checker Text talk	MSM/chat rooms	Gifs & jpegs
Spring 2	Create a graph	Slideshow with music	e-mails Espresso Coding	Tab browsing Downloading	Video Editing Audacity	Data Logging Databases
Summer 1	Photograph slideshow	Espresso Coding PowerPoints	Branching Databases	Spread Sheets	Lego Mindstorm	App inventor & coding
Summer 2	Espresso Coding Bee-bots	emails	PowerPoint Scratch	Multimedia Presentation	Website Homepage	Blogging/Skype Homepages

Terms	Topic	Knowledge (Theory)	Skill (Practice)
Autumn 1	Keyboard Skills Bee-Bots	<ul style="list-style-type: none"> • Do they understand forwards, backwards, up and down? • Can they record their routes? • Can they begin to plan and test a Bee-bot journey? 	<ul style="list-style-type: none"> • Can they use the spacebar, back space, enter, shift and arrow keys? • Can they create a simple series of instructions - left and right? • Can they put two instructions together to control a programmable toy?
Autumn 2	Espresso Coding Bee-Bots	<ul style="list-style-type: none"> • Do they understand forwards, backwards, up and down? • Can they record their routes? • Can they begin to plan and test a Bee-bot journey? 	<ul style="list-style-type: none"> • Can they use the spacebar, back space, enter, shift and arrow keys? • Can they create a simple series of instructions - left and right? • Can they put two instructions together to control a programmable toy?
Spring 1	Internet Search & print	<ul style="list-style-type: none"> • Can they print out a page from the internet? 	<ul style="list-style-type: none"> • Can they use the spacebar, back space, enter, shift and arrow keys?
Spring 2	Create a graph	<ul style="list-style-type: none"> • Can they talk about the results shown on a graph? • Can they word process ideas using a keyboard? 	<ul style="list-style-type: none"> • Can they enter information into a template to make a graph? • Can they word process ideas using a keyboard?
Summer 1	Photograph slideshow	<ul style="list-style-type: none"> • Can they word process ideas using a keyboard? 	<ul style="list-style-type: none"> • Can they capture images with a camera? • Can they word process ideas using a keyboard? •
Summer 2	Espresso Coding Bee-bots	<ul style="list-style-type: none"> • Do they understand forwards, backwards, up and down? • Can they record their routes? • Can they begin to plan and test a Bee-bot journey? 	<ul style="list-style-type: none"> • Can they create a simple series of instructions - left and right? • Can they put two instructions together to control a programmable toy?

Terms	Topic	Knowledge (Theory)	Skill (Practice)
Autumn 1	Espresso Coding Bee Bots	<ul style="list-style-type: none"> • Can they predict the outcomes of a set of instructions? • Can they predict what the outcome of a simple program will be? 	<ul style="list-style-type: none"> • Can they use right angle turns? • Can they use the repeat commands? • Can they test and amend a set of instructions? • Can they write a simple program and test it?
Autumn 2	Internet Search & access links	<ul style="list-style-type: none"> • Can they click links in a website? 	<ul style="list-style-type: none"> • Can they find information on a website?
Spring 1	Bar Charts & text editing		<ul style="list-style-type: none"> • Can they use the shape tools to draw? • Can they highlight text to change its format (B, <u>U</u>, I)?
Spring 2	Slideshow with music	<ul style="list-style-type: none"> • Can they word process a piece of text? 	<ul style="list-style-type: none"> • Can they experiment with text, pictures and animation to make a simple slide show? • Can they record a sound and play it back? • Can they highlight text to change its format (B, <u>U</u>, I)? • Can they use photo editing software to crop photos and add effects?
Summer 1	Espresso Coding PowerPoints	<ul style="list-style-type: none"> • Can they predict the outcomes of a set of instructions? • Can they predict what the outcome of a simple program will be? • Can they word process a piece of text? 	<ul style="list-style-type: none"> • Can they use right angle turns? • Can they use the repeat commands? • Can they test and amend a set of instructions? • Can they write a simple program and test it? • Can they insert/delete a word using the mouse and arrow keys?
Summer 2	emails	<ul style="list-style-type: none"> • Do they recognise what an email address looks like? • Have they joined in sending a class email? 	<ul style="list-style-type: none"> • Can they use the @ key and type an email address? • Can they send and reply to messages sent by a safe email partner (within school)? • Can they highlight text to change its format (B, <u>U</u>, I)?

Peace, Truth, Loyalty

Terms	Topic	Knowledge (Theory)	Skill (Practice)
Autumn 1	Scratch Espresso Coding	<ul style="list-style-type: none"> • Can they experiment with variables to control models? 	<ul style="list-style-type: none"> • Can they use 90 degree and 45 degree turns? • Can they give an on-screen robot directional instructions? • Can they draw a square, rectangle and other regular shapes on screen, using commands?
Autumn 2	Search engines Bookmarks/Favourites	<ul style="list-style-type: none"> • Do they begin to use note making skills to decide what text to copy? • Can they find relevant information by browsing a menu. 	<ul style="list-style-type: none"> • Can they search for an image, then copy and paste it into a document? • Can they copy and paste text into a document?
Spring 1	Photo editing	<ul style="list-style-type: none"> • Can they review images on a camera and delete unwanted images? • Have they experienced downloading images from a camera into files on the computer? 	<ul style="list-style-type: none"> • Can they use photo editing software to crop photos and add effects?
Spring 2	e-mails + attachments Branching databases	<ul style="list-style-type: none"> • Can they use the email address book? • Can they sort and search a database to answer simple questions? • Can they use a branching database? 	<ul style="list-style-type: none"> • Can they open and send an attachment? • Can they input data into a prepared database? • Can they use 'Save picture as' to save an image to the computer?
Summer 1	PowerPoint	<ul style="list-style-type: none"> • Have they experienced downloading images from a camera into files on the computer? • Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? 	<ul style="list-style-type: none"> • Can they create a presentation that moves from slide to slide and is aimed at a specific audience? • Can they combine text, images and sounds and show awareness of audience?
Summer 2	Scratch Espresso Coding	<ul style="list-style-type: none"> • Can they experiment with variables to control models? • Can they write more complex programs? 	<ul style="list-style-type: none"> • Can they use 90 degree and 45 degree turns? • Can they give an on-screen robot directional instructions? • Can they draw a square, rectangle and other regular shapes on screen, using commands?

Terms	Topic	Knowledge (Theory)	Skill (Practice)
Autumn 1	Kodu Espresso Coding	<ul style="list-style-type: none"> Can they make accurate predictions about the outcome of a program they have written? 	<ul style="list-style-type: none"> Can they use repeat instructions to draw regular shapes on screen, using commands? Can they make turns specifying the degrees? Can they give an on-screen robot specific directional instructions that takes them from x toy?
Autumn 2	Lego Mindstorm	<ul style="list-style-type: none"> Can they make accurate predictions about the outcome of a program they have written? 	<ul style="list-style-type: none"> Can they experiment with variables to control models?
Spring 1	Spell Checker Text talk	<ul style="list-style-type: none"> Do they appreciate the benefits of ICT to send messages and to communicate? 	<ul style="list-style-type: none"> Can they use the automatic spell checker to edit spellings?
Spring 2	Tab browsing Downloading	<ul style="list-style-type: none"> Can they use note-taking skills to decide which text to copy and paste into a document? Can they choose images and download into a file? Can they open a link to a new window? Can they open a document (PDF) and view it? 	<ul style="list-style-type: none"> Can they use a search engine to find a specific website? Can they use tabbed browsing to open two or more web pages at the same time? Can they download images from the camera into files on the computer?
Summer 1	Spread Sheets	<ul style="list-style-type: none"> Do they recognise what a spread sheet is? Can they use the terms 'cells', 'rows' and 'columns'? 	<ul style="list-style-type: none"> Can they input data into a prepared database? Can they sort and search a database to answer simple questions? Can they enter data, highlight it and make bar charts?
Summer 2	Multimedia Presentation	<ul style="list-style-type: none"> Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? 	<ul style="list-style-type: none"> Can they capture images using webcams, screen capture, scanning, visualiser and internet? Can they copy graphics from a range of sources and paste into a desktop publishing program? Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? Can they insert sound recordings into a multi media presentation?

Terms	Topic	Knowledge (Theory)	Skill (Practice)
Autumn 1	Kodu Espresso Coding	<ul style="list-style-type: none"> • Do they understand input and output? • Can they combine sequences of instructions and procedures to turn devices on or off? 	<ul style="list-style-type: none"> • Can they write programs that have sequences and repetitions?
Autumn 2	Excel & searches	<ul style="list-style-type: none"> • Can they use a range of presentation applications? • Can they use the word count tool to check the length of a document? • Can they use bullets and numbering tools? • Can they create databases planning the fields, rows and columns? • Can they search databases for information using symbols such as = > or <? • Can they compare the results of different searches? 	<ul style="list-style-type: none"> • Can they save stored information following simple lines of enquiry? • Can they create a formula in a spreadsheet and then check for accuracy and plausibility? • Can they create graphs and tables to be copied and pasted into other documents?
Spring 1	MSM/ e-Twinning chat rooms		<ul style="list-style-type: none"> • Can they use instant messaging to communicate with class members? • Can they conduct a video chat with someone elsewhere in the school or in another school?
Spring 2	Video Editing Audacity	<ul style="list-style-type: none"> • Can they use ICT to measure sound or light or temperature using sensors? • Can they select music from open sources and incorporate into multimedia presentations? • Do they consider audience when editing a simple film? • Do they know how to prepare and then present a simple film? 	<ul style="list-style-type: none"> • Can they download and listen to podcasts? • Can they produce and upload a podcast? • Can they manipulate sounds using Audacity? • Can they work on simple film editing? • Can they use ICT to record sounds and capture both still and video images? • Can they capture sounds, images and video?
Summer 1	Lego Mindstorm	<ul style="list-style-type: none"> • Do they understand input and output? 	<ul style="list-style-type: none"> • Can they use an ICT program to control an external device that is electrical and/or mechanical?
Summer 2	Website Homepage	<ul style="list-style-type: none"> • Can they explore 'What is' questions by playing adventure or quest games? • Can they listen to streaming audio such as online radio? • Can they decide which sections are appropriate to copy and paste from at least two web pages? 	<ul style="list-style-type: none"> • Can they use a search engine using keyword searches? • Can they download a document and save it to the computer? • Can they make a home page for a website that contains links to other pages?

Terms	Topic	Knowledge (Theory)	Skill (Practice)
Autumn 1	App Inventor Espresso Coding	<ul style="list-style-type: none"> • Can they explain how an algorithm works? • Can they check and refine a series of instructions? • Can they identify data error, patterns and sequences? • Can they detect errors in a program and correct them? 	<ul style="list-style-type: none"> • Can they use an ICT program to control a number of events for an external device?
Autumn 2	Advanced Multimedia Show	<ul style="list-style-type: none"> • Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? • Can they confidently choose the correct page set up option when creating a document? 	<ul style="list-style-type: none"> • Can they make an information poster using their graphic skills to good effect? • Can they create a sophisticated multimedia presentation • Can they use the 'hanging indent' tool to help format work where appropriate (e.g. a play script)?
Spring 1	Advanced Internet Searches Gifs & jpegs	<ul style="list-style-type: none"> • Can they use complex searches using such as '+' 'OR' "Find the phrase in inverted commas"? 	<ul style="list-style-type: none"> • Can they 'save as' gif or i peg. wherever possible to make the file size smaller (for emailing or downloading)? • Can they use a search engine using keyword searches? • Can they add special effects to alter the appearance of a graphic?
Spring 2	Data Logging Databases	<ul style="list-style-type: none"> • Can they explore 'what if' questions by planning different scenarios for controlled devices? • Can they use input from sensors to trigger events? • Can they use the formulae bar to explore mathematical scenarios? 	<ul style="list-style-type: none"> • Can they use ICT to measure sound, light or temperature using sensors and interpret the data? • Can they collect data using data logging equipment? • Can they create their own database and present information from it?
Summer 1	App Inventor Espresso Coding	<ul style="list-style-type: none"> • Can they explain how an algorithm works? • Can they check and refine a series of instructions? • Can they identify data error, patterns and sequences? • Can they detect errors in a program and correct them? 	<ul style="list-style-type: none"> • Can they use an ICT program to control a number of events for an external device?
Summer 2	Blogging & Skype	<ul style="list-style-type: none"> • Can they contribute to discussions online? • Can they conduct a video chat with people in another country or organisation? 	<ul style="list-style-type: none"> • Can they present a film for a specific audience and then adapt same film for a different audience? • Can they confidently use text formatting tools, including heading and body text?

