

3. Progression + Coverage of Core Knowledge + Skills – COMPUTING

Year: 2 Subject Leader: K.Ryan

	Autumn 1 7 weeks	Autumn 2 7 weeks	Spring 1 5 weeks	Spring 2 6 weeks	Summer 1 6 weeks	Summer 2 7 weeks
Topic:	Great People Who Changed the World		All Creatures Great and Small		Land Ahoy!	
Coverage Overview	Computer Science (Programming) (CP) PM Unit 2.1: Coding (5) Digital Literacy (DL) Linked PM units (selected parts to support): PM Unit 2.2: Online Safety (3)	Information Technology (IT) Word Document – Create a factsheet on Word. History Linked PM units (selected parts to support): IT / DL - PM Unit 2.5: Effective Searching (3); IT - PM Unit 2.8: Presenting Ideas (4)	Information Technology PM Unit 2.4 Questioning (5) Digital Literacy - E-Safety Whole school focus. Ongoing / revisited in other terms.	Information Technology: PowerPoint – Presentation. Science Linked PM units (selected parts to support above): IT / DL - PM Unit 2.5: Effective Searching (3); IT - PM Unit 2.8: Presenting Ideas (4)	Information Technology Paint Program – Treasure Island Art/Artists Information Technology PM Unit 2.7: Making Music (3)	Computer Science (Programming) Scratch Junior NB: To be planned in liaison with Year 3 teachers at RMJ to support continuity and progression next year.
Core Knowledge	I understand what is meant by 'technology' and can identify a variety of examples in and out of school. (DL) I know it is important to log-in to shared computers and can explain why to another person. (DL) I know that we must be careful when online because not everyone is who they say they are. (DL) I know what an algorithm is and understand that the sequence of instructions must be clear, precise and unambiguous. (CS) I know what debugging is and how to do this on a simple program. (CS)	I know that a search engine can be used to find information, including images, about a given topic. (IT) I understand I must be responsible and sensible when using the internet. (DL) I know to tell an adult if I see something unexpected or worrying online. (DL) I know that Microsoft Word has tools that can change and improve the appearance of my text. (IT)	I know that computers can be used to store and organise information in different ways, e.g. pictogram. (IT) I understand what is meant by a binary tree and that questions are limited to yes/no questions. (IT) Digital Literacy - E-Safety: I know that some devices can connect users with other people, e.g. phones, internet, Xbox etc., and know that things can be shared electronically. (DL) I know it is important to log-in to shared computers and can explain why to another person. (DL) I know that not everyone is who they say they are on the internet. (DL) I know to tell an adult when I see something unexpected or worrying online. (DL)	I know that PowerPoint is a way of displaying and sharing information. (IT) I know that inputting instructions into a computer can make different things happen on the screen within our PowerPoint presentation. (IT/CS) I know that I only need to type in key words to get the information, when using a search engine. (IT) I know that I can change and improve the appearance of my presentation, e.g. changing the font and by adding images. (IT) I know how to use the shift key to create a question mark / exclamation mark. (IT) I know how to create, store and retrieve my work from One Drive. (IT)	I know that I can use the tools section to change the appearance and form of the shapes and lines I draw. (IT) I know that there is software that can be used to compose music digitally. (IT)	Aim: To progress through different stages and elements of 'Scratch', practising and applying previous knowledge and skills and to support transition to computing in Year 3. I know what algorithms are and that programs execute by following precise and unambiguous instructions.
Skills Development	I can log-in to a Chrome book safely and with increasing independence. (IT/DL) I can talk about why it is important to be kind and polite, including when online (DL) I can explain what a digital footprint is. (DL) I can explain what an algorithm is to another person. (CS) I can create a simple algorithm for a specific purpose. (CS) I can identify specific parts of the program and correct some errors (debug). (CS) I can use logical reasoning to predict the behaviour of simple programs. (CS)	I can log-in to a Chrome books safely and independently. (IT) I can access Microsoft Word program. I can use the keyboard to type words and sentences and use the space bar, shift key for capital letters and full stop keys correctly. (IT) I can change the size and colour of the font. (IT) I can save my work to the OneDrive and retrieve it at a later stage. (IT) I can use the internet safely to research about a given topic. (DL/IT) I can insert an image to my document, with some support. (IT)	I can design a simple binary tree to sort pictures of a given topic. (IT) I can use a binary tree to find out and sort information. (IT) Digital Literacy - E-Safety: I can talk about why it is important to be kind and polite, including when online. (DL) I can use the internet safely to search for information linked to a given topic, under supervision of the teacher. (DL) I can identify what personal information is and can explain why I should not share this online. (DL) I can agree and follow sensible e-safety rules. (DL) I can explain what a digital footprint is, giving some examples. (DL)	I can log on to Chrome books independently and safely (IT/DL). I can create a simple presentation on PowerPoint, to show information about a topic I have researched. (IT) I can add images + animations (where relevant) into my presentation. (IT) I can save my work in a designated space and retrieve it at a later stage. (IT) I can experiment and use some of the tools in PowerPoint to improve my presentation, e.g. change the background. (IT) I can use and define the appropriate computing vocabulary to show my understanding. (DL)	I can access a Paint Program (through Purple Mash). (IT) I can use the tools to change the form of the shapes and lines. (IT) I can use the mouse with increasing control to develop detail in my picture. (IT) I can use a computer program to create a graphic score. (IT) I can experiment with changing the tempo (speed), dynamics (louder/softer) and timbre (different types of sounds), of my musical composition. (IT) I can upload sounds to my composition. (IT) I can begin to edit my musical composition. (IT)	I can use numbers, as well as symbols, to specify movements, e.g. forward 4 rather than ↑↑↑↑. (CS) I can use logical reasoning to predict the behaviour of simple programs. (CS) I can identify and correct / debug some errors in a program. (CS)

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Critical Vocab	Algorithm	Log-in	Microsoft Word	Font / Text	Information	Internet	Log-in	Research	Paint Program	See Aut 1, plus:	
	Program	Username	Search engine	Space bar	Store	Online	PowerPoint	Search engine	2Paint	Scratch Junior	
	Code	Password	Images	Shift key	Organise	Communication	Presentation	Key words	Tools	Block code	
	Sequence	Private	Information	Full- stop key	Binary Tree	Cyberbullying	Text	Information	Shape	Numerical	
	Precise	Online	Research	Tools / Icon	Sort	Personal Information	Images	Research	Lines	Symbol	
	Debug	E-Safety	Responsible	Appearance	Classify	Permission	Sound	Responsible	Background	Execute	
	Error			Size / Colour		Digital Footprint	Insert	Save	Detail	Run	
	Input					Log-in / Password	Slide	Open / Retrieve	Insert	Unambiguous	
	Output					Right	Background	Folder	Software	Predict	
	Repetition					Privacy	Space bar	Appearance	Digitally	Logical thinking	
	Predict					Devices	Shift Key	Font	Edit		
									<u>Music vocab</u> : Tempo, Dynamics, Timbre, Graphic Score / Musical score, Compose		
Enrichment Opps	Debug challenges on Purple Mash		History – create a factsheet about a significant person.		E-Safety day / week (Feb)		Homework activity: PowerPoint presentation about themselves / pet etc.		Scenes of your favourite paces – 2Do Homework task	In liaison with RMJ Y3 teacher... possible coding lesson taught by new teachers to support transition.	
	Coding vocabulary quiz. Complete a set task on PurpleMash coding game – teacher observe.		Create word document fact page on a ‘Great Person that changed the world’ (History link). Practical quiz – children showing what keys/tabs to press/click in response to teacher.		Online safety quiz. Response to safety scenarios. Discussion with pupils. Questioning: TBC		Create a PowerPoint presentation on ‘Habitats’ (science link). True or false quiz based on typing/PowerPoint skills.		Create a paint image which includes taught skills (art/land ahoy topic link). Making music: TBC	Coding vocabulary quiz – more in depth. Complete a set task on PurpleMash /Scratch Junior coding game – teacher observe.	
Assessing Impact											