

Progression in: Computing**Subject leader: Jim Sharp****Vocabulary**

<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Programming:	Programming:	Programming:	Programming:	Programming:	Programming:
robot instruction program turtle control rule coding design up down centre position direction above below screen touch-screen shut down start menu	Clockwise Anti-clockwise underneath sprite (de)bug data information object model process horizontal vertical diagonal (i.e. sloped) symmetrical reflect left right	digitise algorithm sequence series programming language purpose value perpendicular	repetition selection simulation pattern logical reasoning structure cause characteristic phase transition angle	protocol deconstruct improve efficiency audience complex prior subsequent intersecting	binary functionality aesthetics user interface deterministic simultaneous cumulative concentric radial
Hardware:	Hardware:	Hardware:	Hardware:	Hardware:	Hardware:
internet web computer app Google search engine gif digital	network device application tool file drive disk (sub)folder save save-as internet search video audio text image hardware editing/presentation software window material	motor input output digital resources text post social media community meme email blog vlog forum font URL word processing voice recognition kilobyte megabyte	sensor physical system browser gigabyte* (including knowledge of common file sizes e.g. photo, document) back up Jpeg pixel resolution quality pdf USB video call	gateway hub router server driver cookies file directory send reply CC/BCC reply-all recipient field permissions cache flash drive memory stick/pen HTML open source	IP address phishing virus terabyte

	Start to make selections when presented with multiple choices	Start to select and order information according to relevance.	Select and sort by relevance, start to analyse reliability and explain their reasons.	Begin to critique peers' work with simple comments that can be later rationalised and built upon.	Thoughtfully and politely critique their peers' rationale for selection / sorting.
Using IT safely:	Using IT safely:	Using IT safely:	Using IT safely:	Using IT safely:	Using IT safely:
Understand that there may be dangers online, and explain who they'll talk to if they're worried.	Understand who they can report things to if they're worried about anything digital.	Start to locate online safety procedures, e.g. the report-abuse button, screengrabs to desktop.	Understand and use a range of online safety procedures, e.g. saving a screengrab so it can be retrieved.	Understand the need to screenshot an online message and forward it by email when it is concerning.	Constantly show awareness of e-safety, e.g. checking settings as a priority within a new app - specifically related to constantly asking e-safety related questions.
		Able to list some forms of personal data (e.g. home address, date of birth).	Understand the need to review privacy settings to protect personal data.	Verbalise what is meant by personal data, and explain how we might reveal it inadvertently	Engrain the idea of reviewing their messages, texts, posts etc to check for personal data frequently.
Communications:	Communications:	Communications:	Communications:	Communications:	Communications:
	With support, access a communal communication system - Purple Mash for home learning	With support, set up a video conference call - Google Classroom	Take simple notes	Take notes - asking clarifying questions where appropriate to ensure notes become more detailed.	Leave messages, if appropriate.
		Write a short message on a communal site - leaving public messages on Google Classroom	Write messages on communal messaging sites (Google Classroom) which are poignant and specific to the site - in this case educational.	Reply and/or forward to existing messages. This can be on a public messaging board (Google Classroom) or through e-mail.	Understand the concepts of CC and BCC - using them in safe environments if appropriate.
Using IT respectfully:	Using IT respectfully:	Using IT respectfully:	Using IT respectfully:	Using IT respectfully:	Using IT respectfully:
Begin to understand that their actions may have negative consequences.	Start to verbalise other people's needs and feelings.	Verbalise the possible consequences of their online behaviour.	Use their knowledge of consequences to manage and adapt their own behaviour.	Challenge others' values and opinions sensitively (and when appropriately), beginning to cope with / compensate for other people's lack of respect.	Sensitively cope with and compensate for other people's lack of respect through non-antagonistic discussion.
		Be polite when challenging others' values and opinions.	Show awareness of cultural and religious context, adjusting their style of challenge accordingly.	Show respect for online content, e.g. by investigating permissions.	Show awareness of, and explain, privacy, copyright and plagiarism.
		Show respect for online content, e.g. distinguishing between public and private material.	Show respect for online content, e.g. by acknowledging a source. This can be done through verbal acknowledgement.		

Theme: Practical Skills

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Keyboard:	Keyboard:	Keyboard:	Keyboard:	Keyboard:	Keyboard:

Find letters on a qwerty keyboard, e.g. to log in to a simple system successfully, or to write their own name. .	Navigate a qwerty keyboard with more confidence, e.g. to log in to a system successfully or to write simple sentences	Increased speed with a qwerty keyboard, e.g. can type several sentences in a lesson without struggling.	Use more than one finger to type letters, and both thumbs for the spacebar.	Start to position hands correctly, moving fingers rather than arms to type.	Confident use of a mouse, including the burgeoning ability to touch-type and/or reach a standard of more than one word per second.
Mouse:	Mouse:	Mouse:	Mouse:	Mouse:	Mouse:
Manipulate a mouse	Manipulate a mouse without looking, and use the double-click function.	Highlight, drag, right-click and double-click.	Use a mouse to manipulate items on a screen with growing confidence and independence.	Confident use of a mouse.	Seamless use of a mouse.