Peveril Class – Years 4/5
Computing Knowledge Progression

Term / unit	Builds on	Knowledge progression	Computing skills / application	Key vocabulary	Where this leads next
Advent 1 – Computing systems and networks: Search engines	Networks, online information and judging accuracy.	Know broadly how search engines crawl, index and rank results; understand that search terms affect results and that not all online information is accurate or unbiased.	Construct effective searches; compare results; assess relevance/accuracy; refine search terms and select trustworthy sources.	search engine; browser; keyword; result; index; rank; reliable; source	Builds towards understanding websites, AI, machine learning and critical digital literacy.
Advent 2 – Programming 1: Scratch: Music	Loops/events and increasingly complex block programs.	Know how coding can control digital sound; understand sequences, loops and other structures can create repeated musical patterns and interactive outcomes.	Create sounds/beats with code; use repetition; combine blocks; test, debug and refine a programmed composition.	Scratch; sound; loop; sequence; block; code; debug; program	Prepares for variables, conditionals, sensors and text-based programming.
Lent 1 – Data handling: Mars Rover 1	Databases and digital data representation.	Know that computers collect, store and transmit data; understand binary as a way computers represent information and how a Mars Rover communicates data back to Earth.	Interpret binary representations; model data transmission; collect/organise data; explain how remote systems communicate.	Mars Rover; data; binary; transmit; signal; input; output; storage	Supports image representation, compression, spreadsheets and big data.
Lent 2 – Programming 2: BBC micro:bit	Scratch structures and debugging.	Know that physical computing combines hardware and software; sensors provide inputs; variables and conditional statements can control outputs and responses.	Program a micro:bit; use inputs/sensors; create variables/conditions; test and debug an interactive project.	micro:bit; sensor; input; output; variable; condition; code; debug	Leads to more complex programming, automation and Python.
Pentecost 1 – Stop-motion animation	Earlier digital imagery/design and purposeful media creation.	Know that animation creates an illusion of movement from sequenced frames; understand planning, consistency, frame rate and editing choices affect the final media product.	Plan a storyboard; capture sequential frames; edit timing; add appropriate media; review and improve an animation.	animation; stop motion; frame; sequence; storyboard; edit; playback; media	Prepares for sophisticated multimedia creation in Year 6.

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Pentecost 2 – Skills showcase: Mars Rover 2	Binary/data transmission and digital media.	Know that digital images are made of pixels and represented as data; understand links between binary, image quality, file size and compression.	Represent images using pixels/binary; manipulate digital image data; apply computing knowledge in an integrated project.	pixel; binary; image; resolution; compression; file size; data; digital	Integrates data and media knowledge before upper-KS2 systems and multimedia work.