

Melandra Class – Years 3/4

Computing Knowledge Progression

Term / unit	Builds on	Knowledge progression	Computing skills / application	Key vocabulary	Where this leads next
Advent 1 – Computing systems and networks	KS1 computer systems, hardware/software and files.	Know that networks connect computers and devices; understand basic roles of routers, servers and packet data and how information travels across a network/internet.	Identify network components; model data journeys; explain how devices communicate; use networked systems responsibly.	network; internet; router; server; packet; data; connection; device	Leads to web/search systems, storage, security and machine learning.
Advent 2 – Programming	KS1 algorithms, debugging and block coding.	Know key programming structures including sequence, repetition and events; understand that code can be modified and debugged to meet a goal.	Create and remix block programs; use loops/events; test systematically; debug and evaluate.	Scratch; code; block; loop; event; sequence; sprite; debug	Prepares for variables, conditionals, micro:bit and more complex Scratch.
Lent 1 – Emailing	Network communication and safe online behaviour.	Know that email is electronic communication; understand addresses, attachments and appropriate online communication; recognise fake or suspicious emails.	Compose, send and reply to email; attach files; use respectful language; identify suspicious messages.	email; address; inbox; attachment; send; reply; spam; phishing; netiquette	Supports later collaborative working, online safety and digital communication.
Lent 2 – Journey inside a computer	Hardware and networks.	Know how inputs, processing, memory/storage and outputs work together; recognise that computers follow instructions and store information.	Model a computer system; identify inputs/outputs; explain the role of memory; examine hardware components safely.	input; output; processor; memory; storage; hardware; instruction; component	Builds towards understanding files, networks, storage and computer architecture.
Pentecost 1 – Online safety	Privacy and safe use from KS1.	Know the difference between fact, belief and opinion online; understand privacy settings and personal information; recognise persuasive or misleading online content and know how to respond safely.	Judge probable accuracy; make privacy choices; identify risks; report concerns; explain responsible online behaviour.	fact; opinion; belief; privacy; accurate; reliable; personal information; report	Leads to critical searching, digital wellbeing, reputation and platform awareness.

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Pentecost 2 – Data handling	KS1 data collection, pictograms and branching databases.	Know that databases organise records into fields; data can be sorted, filtered and represented to answer questions; digital tools make comparison more efficient.	Create records; sort/filter data; interrogate a database; represent and interpret findings.	database; record; field; sort; filter; data; information; compare	Progresses towards spreadsheets, big data and data-driven systems.