



Castercliff Primary Academy – Year 3 Computing Progression.



Yr 3	
Computing systems and networks 1	<p>Computing Science Learning about the purpose of routers. Understanding the role of the key components of a network. Understanding that websites & videos are files that are shared from one computer to another. Learning about the role of packets. Understanding how networks work and their purpose. Identifying the key components within a network, including whether they are wired or wireless. Recognising links between networks and the internet. Learning how data is transferred.</p>
	<p>Information Technology</p>
	<p>Digital Literacy</p>
	<p>Sticky Knowledge (inc. Online Safety) To understand what a network is and how a school network might be organised. To know that a server is central to a network and responds to requests made. To know how the internet uses networks to share files. To know that a router connects us to the internet To know what a packet is and why it is important for website data transfer</p>
Programming	<p>Computing Science Using decomposition to explore the code behind an animation. Using repetition in programs. Using logical reasoning to explain how simple algorithms work. Explaining the purpose of an algorithm. Forming algorithms independently. Using logical thinking to explore more complex software; predicting, testing and explaining what it does. Incorporating loops to make code more efficient. Continuing existing code. Making reasonable suggestions for how to debug their own and others' code.</p>
	<p>Sticky Knowledge (inc. Online Safety) To know that Scratch is a programming language and some of its basic functions. To understand how to use loops to improve programming. To understand how decomposition is used in programming. To understand that you can remix and adapt existing code.</p>



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	Information Technology		
	Digital Literacy	Online Safety To understand that the internet can affect your moods and feelings.	
Computing systems and networks 2	Computing Science		Sticky Knowledge (inc. Online Safety) To understand that email stands for 'electronic mail.' To know that an attachment is an extra file added to an email. To understand that emails should contain appropriate and respectful content. To know that cyberbullying is bullying using electronics such as a computer or phone.
	Information Technology Learning to log in and out of an email account. Writing an email including a subject, 'to' and 'from' Sending an email with an attachment. Replying to an email. Understanding the purpose of emails.		
	Digital Literacy Learning about cyberbullying. Learning that not all emails are genuine, recognising when an email might be fake and what to do about it.	Online Safety To understand that the internet can affect your moods and feelings.	
Computing systems and networks 3	Computing Science Understanding what the different components of a computer do and how they work together. Using decomposition to explain the parts of a laptop computer Explaining the purpose of an algorithm		Sticky Knowledge (inc. Online Safety) To know the roles that inputs and outputs play on computers. To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together. To know what a tablet is and how it is different from a laptop/desktop computer.
	Information Technology		
	Digital Literacy	Online Safety To know that privacy settings limit who can access your important personal information such as your name, age, gender etc.	



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Creating media	Computing Science Using logical thinking to explore more complex software; predicting, testing and explaining what it does.	Sticky Knowledge (inc. Online Safety) To know that different types of camera shots can make my photos or videos look more effective To know that I can edit photos and videos using film editing software. To understand that I can add transitions and text to my video.
	Information Technology Taking photographs and recording video to tell a story Using software to edit and enhance their video adding music, sounds and text on screen with transitions.	
	Digital Literacy	
Data handling	Computing Science Using logical thinking to explore more complex software; predicting, testing and explaining what it does	Sticky Knowledge (inc. Online Safety) To know that a database is a collection of data stored in a logical, structured and orderly manner. To know that computer databases can be useful for sorting and filtering data. To know that different visual representations of data can be made on a computer.
	Information Technology Understanding the vocabulary associated with databases: field, record, data. Learning about the pros and cons of digital versus paper databases. Sorting and filtering databases to easily retrieve information. Creating and interpreting charts and graphs to understand data.	
	Digital Literacy	