Castercliff Primary Academy – Year 1 Computing Progression.

Yr 1			
Computing Systems and Networks: Improving Mouse Skills Online Safety	**Computing Science** Learning how to explore and tinker with hardware to find out how it works. Learning where keys are located on the keyboard.		**Sticky Knowledge (inc. Online Safety)** To know that "log in and log out" means to begin and end a connection with a computer. To know that a computer and mouse can be used to click, drag, fill and select and also add backgrounds, text, layers, shapes and clip art. To know that passwords are important for security
	Information Technology Using a basic range of tools within graphic editing software Developing control of the mouse through dragging, clicking and resizing of images to create different effects Developing understanding of different software tools. Recognising devices that are connected to the internet.		
	Digital Literacy Logging in and out and saving work on their own account.	**Online Safety** To know that the internet is many devices connected to one another.	
Programming 1: Algorithms Unplugged Online Safety	**Computing Science** Recognising that some devices are input devices and others are output devices. Learning that decomposition means breaking a problem down into smaller parts Using decomposition to solve unplugged challenges. Developing the skills associated with sequencing in unplugged activities. Following a basic set of instructions. Assembling instructions into a simple algorithm. Learning to debug instructions when things go wrong. Learning to debug an algorithm in an unplugged scenario.		**Sticky Knowledge (inc. Online Safety)** To understand that an algorithm is when instructions are put in an exact order. To know that input devices get information into a computer and that output devices get information out of a computer. To understand that decomposition means breaking a problem into manageable chunks and that it is important in computing. To know that we call errors in an logarithm 'bugs' and fixing these 'debugging'.
	Information Technology		
	Digital Literacy	**Online Safety** To know what to do if you feel unsafe or worried online - tell a trusted adult.	
	Computing Science Learning where keys are located on the keyboard.		**Sticky Knowledge (inc. Online Safety)**

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<table>
<tr>
<td rowspan="4">Showcase Skills: Rocket to the Moon Online Safety</td>
<td colspan="2">Learning how to operate a camera to take photos and videos.
Using logical reasoning to predict the behaviour of simple programs.
Developing the skills associated with sequencing in unplugged activities.
Following a basic set of instructions.
Assembling instructions into a simple algorithm.
Learning to debug instructions when things go wrong.
Learning to debug an algorithm in an unplugged scenario.</td>
<td rowspan="4">To know that when we create something
on a computer it can
be more easily saved
and shared than a
paper version.
To know some of the simple graphic design features of a piece of online software.
To know that a spreadsheet is an electronic ‘table’ for sorting data.</td>
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<tr>
<td colspan="2">Information Technology
Using a basic range of tools within graphic editing software.
Taking and editing photographs
Developing control of the mouse through dragging, clicking and resizing of images to create different effects.
Developing an understanding of different software tools.</td>
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<tr>
<td>Digital Literacy
Logging in and out and saving work on their own account</td>
<td>Online Safety
To know that people you do not know on the internet (online) are strangers and are not always who they say they are</td>
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<tr>
<td rowspan="3">Programming 2: Bee-Bots Online Safety</td>
<td colspan="2">Computing Science
Learning how to explore and tinker with hardware to find out how it works.
Learning how to operate a camera to take photos and videos.
Using decomposition to solve unplugged challenges.
Using logical reasoning to predict the behaviour of simple programs.
Developing the skills associated with sequencing in unplugged activities.
Following a basic set of instructions.
Assembling instructions into a simple algorithm
Programming a floor robot to follow a planned route
Learning to debug instructions when things go wrong.
Using programming language to explain how a floor robot works
Learning to debug an algorithm in an unplugged scenario.</td>
<td rowspan="3">Sticky Knowledge (inc. Online Safety)
To know that to stay safe online it is important to keep personal formation safe.</td>
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<td colspan="2">Information Technology</td>
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	Taking and editing photographs.		
	Digital Literacy	**Online Safety** To know that to stay safe online it is important to keep personal formation safe.	
Creating Media: Digital Literacy Online Safety	**Computing Science** Learning how to explore and tinker with hardware to find out how it works Learning where keys are located on the keyboard. Learning how to operate a camera to take photos and videos. Developing the skills associated with sequencing in unplugged activities		**Sticky Knowledge (inc. Online Safety)** To understand that holding the camera still and considering angles and light are important to take good pictures. To know that you can edit, crop and filter photographs. To know how to search safely for images online.
	Information Technology Using a basic range of tools within graphic editing software Taking and editing photographs. Developing control of the mouse through dragging, clicking and resizing of images to create different effects. Developing understanding of different software tools. Searching and downloading images from the internet safely		
	Digital Literacy When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable	**Online Safety** To know that 'sharing' online means giving something specific to someone else via the internet and 'posting' online means placing	
Data Handling: Introduction to Data Online Safety	**Computing Science** Learning how to explore and tinker with hardware to find out how it works Recognising that some devices are input devices and others are output devices. Learning where keys are located on the keyboard		**Sticky Knowledge (inc. Online Safety)** To know how that charts and pictograms can be created using a computer. To understand that a branching database is a way of classifying a group of objects.
	Information Technology Developing control of themouse through dragging, clicking and resizing of images to create different effects Developing understanding of different software tools. Recognising devices that are connected to the internet.		

	Understanding that technology can be used to represent data in different ways: pictograms, tables, pie charts, bar charts, block graphs etc. Using data representations to answer questions about data. Using software to explore and create pictograms and branching databases.		To know that computers understand different types of 'input'.
	Digital Literacy	**Online Safety** Recapping on-line safety – Year 1	