

Medium Term Plan - Year 1 – Computing

HT1 – Computing Systems and Networks - Technology around us	
Recall	<p>Discuss the technology they used in EYFS</p> <p>Toni readers</p> <p>Max Table</p> <p>Making marks using interactive whiteboard</p> <p>Watch the video which Early Years have made on the School Computing Website.</p>
End Point  (National Curriculum Statements)	<p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>recognise common uses of information technology beyond school</p> <p>use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>
Prior Learning	EYFS fine motor skills
Sequence of Learning / Contextual Knowledge  (Lesson ideas) <b>Disciplinary Knowledge</b>	<p>I can identify technology.</p> <p>I can identify a computer and its main parts.</p> <p>I can use a mouse in different ways.</p> <p>I can use a keyboard to type.</p> <p>I can use the keyboard to edit text.</p> <p><b>I can create rules for using technology responsibly.</b></p>
	<p>" -I can explain how these technology examples help us</p> <p>- I can explain technology as something that helps us</p> <p>- I can locate examples of technology in the classroom"</p> <p>" -I can name the main parts of a computer</p> <p>- I can switch on and log into a computer</p> <p>- I can use a mouse to click and drag"</p> <p>" -I can click and drag to make objects on a screen</p> <p>- I can use a mouse to create a picture</p> <p>- I can use a mouse to open a program"</p> <p>" -I can save my work to a file</p> <p>- I can say what a keyboard is for</p> <p>- I can type my name on a computer"</p> <p>" -I can delete letters</p>

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	<ul style="list-style-type: none"> <li>- I can open my work from a file</li> <li>- I can use the arrow keys to move the cursor”</li> <li>” -I can discuss how we benefit from these rules</li> <li>- I can give examples of some of these rules</li> <li>- I can identify rules to keep us safe and healthy when we are using technology in and beyond the home”</li> </ul>
Next Steps	Y2 – HT1
Key Vocabulary	Technology Computer Mouse Trackpad Keyboard Screen Double Click Program
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT2 & HT3 – Creating Media – Digital Paining (MS Paint) Digital Writing (word processor)	
Recall	What is the difference between text and images. What is... Paint Program Tool Paintbrush Fill Undo Shape
End Point  (National Curriculum Statements)	Ensure pupils are responsible, competent, confident and creative users of information and communication technology.

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<p>Prior learning</p>	<p><u>n/a</u></p>
<p>Sequence of Learning / Contextual Knowledge</p> <p>(Lesson ideas)</p> <p><b>Disciplinary Knowledge</b></p>	<p><u>Digital Painting</u></p> <p>I can describe what different freehand tools do.</p> <p>I can use the shape tool and the line tools.</p> <p>I can make careful choices when painting a digital picture.</p> <p>I can explain why I chose the tools I used.</p> <p><b>I can use a computer on my own to paint a picture.</b></p> <p>I can compare painting a picture on a computer and on paper.</p> <p><u>Digital Writing</u></p> <p>I can use a computer to write.</p> <p>I can add and remove text on a computer.</p> <p>I can identify that the look of text can be changed on a computer.</p> <p><b>I can make careful choices when changing text.</b></p> <p>I can explain why I used the tools that I chose.</p> <p>I can compare writing on a computer with writing on paper.</p>
	<p>" -I can draw lines on a screen and explain which tools I used</p> <p>- I can make marks on a screen and explain which tools I used</p> <p>- I can use the paint tools to draw a picture"</p> <p>" -I can make marks with the square and line tools</p> <p>- I can use the shape and line tools effectively</p> <p>- I can use the shape and line tools to recreate the work of an artist"</p> <p>" -I can choose appropriate shapes</p> <p>- I can create a picture in the style of an artist</p> <p>- I can make appropriate colour choices"</p> <p>" -I can choose appropriate paint tools and colours to recreate the work of an artist</p> <p>- I can say which tools were helpful and why</p> <p>- I know that different paint tools do different jobs"</p> <p>" -I can change the colour and brush sizes</p> <p>- I can make dots of colour on the page</p> <p>- I can use dots of colour to create a picture in the style of an artist on my own"</p> <p>" -I can explain that pictures can be made in lots of different ways</p> <p>- I can say whether I prefer painting using a computer or using paper</p>

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	<ul style="list-style-type: none"> <li>- I can spot the differences between painting on a computer and on paper"</li> <li>" -I can identify and find keys on a keyboard</li> <li>- I can open a word processor</li> <li>- I can recognise keys on a keyboard"</li> <li>" -I can enter text into a computer</li> <li>- I can use backspace to remove text</li> <li>- I can use letter, number, and space keys"</li> <li>" -I can explain what the keys that I have learnt about already do</li> <li>- I can identify the toolbar and use bold, italic, and underline</li> <li>- I can type capital letters"</li> <li>" -I can change the font</li> <li>- I can select all of the text by clicking and dragging</li> <li>- I can select a word by double-clicking"</li> <li>" -I can decide if my changes have improved my writing</li> <li>- I can say what tool I used to change the text</li> <li>- I can use 'undo' to remove changes"</li> <li>" -I can explain the differences between typing and writing</li> <li>- I can make changes to text on a computer</li> <li>- I can say why I prefer typing or writing"</li> </ul>
Next Steps	Y2 – HT2
Key Vocabulary	Paint Program Tool Paintbrush Fill Undo Shape Double Click Program
Teacher Assessment	

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Possible Misconceptions	
Class Teacher Notes	

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HT4 – Data and information – Grouping Data (using ppt)	
Recall	What is a group? How can you group data? What is... Label Group Count Compare
End Point  (National Curriculum Statements)	use technology purposefully to create, organise, store, manipulate and retrieve digital content
Prior Learning	n/a
Sequence of Learning / Contextual Knowledge  (Lesson ideas) <b>Disciplinary Knowledge</b>	I can label objects. I can identify that objects can be counted. I can describe objects in different ways. <b>I can count objects with the same properties.</b> <b>I can compare groups of objects.</b> <b>I can answer questions about groups of objects.</b>
	" -I can describe objects using labels - I can identify the label for a group of objects - I can match objects to groups" " -I can count a group of objects - I can count objects - I can group objects" " -I can describe an object - I can describe a property of an object - I can find objects with similar properties" " -I can count how many objects share a property - I can group objects in more than one way - I can group similar objects" " -I can choose how to group objects

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	<ul style="list-style-type: none"> <li>- I can describe groups of objects</li> <li>- I can record how many objects are in a group"</li> <li>" -I can compare groups of objects</li> <li>- I can decide how to group objects to answer a question</li> <li>- I can record and share what I have found"</li> </ul>
Next Steps	Y2 – HT4
Key Vocabulary	<ul style="list-style-type: none"> <li>Label</li> <li>Group</li> <li>Count</li> <li>Compare</li> </ul>
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT5 & 6 – Programming HT5 Beebots HT6 Scratch	
Recall	<ul style="list-style-type: none"> <li>What is a sequence</li> <li>What is a 'sprite?'</li> <li>What is...</li> <li>Command</li> <li>Instructions</li> <li>Animation</li> <li>Sprite</li> <li>Algorithm</li> </ul>
End Point	

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(National Curriculum Statements)	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Prior learning	<u>n/a</u>
<p>Sequence of Learning / Contextual Knowledge</p> <p>(Lesson ideas)</p> <p><b>Disciplinary Knowledge</b></p>	<p><u>Moving a Robot</u></p> <p>I can explain what a given command will do.</p> <p>I can act out a given word by following instructions.</p> <p>I can combine forwards and backwards commands to make a sequence.</p> <p>I can combine four direction commands to make sequences.</p> <p><b>I can plan a simple program.</b></p> <p>I can find more than one solution to a problem.</p> <p><u>Animation</u></p> <p>I can choose a command for a given purpose.</p> <p>I can show that a series of commands can be joined together.</p> <p>I can identify the effect of changing a value.</p> <p>I can explain that each sprite has its own instructions.</p> <p>I can design the parts of a project.</p> <p><b>I can use my algorithm to create a program.</b></p>
	<p><u>" -I can match a command to an outcome</u></p> <p><u>- I can predict the outcome of a command on a device</u></p> <p><u>- I can run a command on a device"</u></p> <p><u>" -I can follow an instruction</u></p> <p><u>- I can give directions</u></p> <p><u>- I can recall words that can be acted out"</u></p> <p><u>" -I can compare forwards and backwards movements</u></p> <p><u>- I can predict the outcome of a sequence involving forwards and backwards commands</u></p> <p><u>- I can start a sequence from the same place"</u></p> <p><u>" -I can compare left and right turns</u></p> <p><u>- I can experiment with turn and move commands to move a robot</u></p> <p><u>- I can predict the outcome of a sequence involving up to four commands"</u></p> <p><u>" -I can choose the order of commands in a sequence</u></p> <p><u>- I can debug my program</u></p>

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	<ul style="list-style-type: none"> <li>- <u>I can explain what my program should do"</u></li> <li><u>" -I can identify several possible solutions</u></li> <li>- <u>I can plan two programs</u></li> <li>- <u>I can use two different programs to get to the same place"</u></li>   <li><u>" -I can compare different programming tools</u></li> <li>- <u>I can find which commands to move a sprite</u></li> <li>- <u>I can use commands to move a sprite"</u></li> <li><u>" -I can run my program</u></li> <li>- <u>I can use a Start block in a program</u></li> <li>- <u>I can use more than one block by joining them together"</u></li> <li><u>" -I can change the value</u></li> <li>- <u>I can find blocks that have numbers</u></li> <li>- <u>I can say what happens when I change a value"</u></li> <li><u>" -I can add blocks to each of my sprites</u></li> <li>- <u>I can delete a sprite</u></li> <li>- <u>I can show that a project can include more than one sprite"</u></li> <li><u>" -I can choose appropriate artwork for my project</u></li> <li>- <u>I can create an algorithm for each sprite</u></li> <li>- <u>I can decide how each sprite will move"</u></li> <li><u>" -I can add programming blocks based on my algorithm</u></li> <li>- <u>I can test the programs I have created</u></li> <li>- <u>I can use sprites that match my design"</u></li> </ul>
Next steps	Y2 – HT5
Key Vocabulary	Command Instructions Animation Sprite Algorithm
Teacher Assessment	

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