



## Computing Year 2



	Term 1		Term 2	Term 3	
Unit of work	Writing Algorithms	Creating Animations	Programming Probots	Navigating the Web and Staying Safe online	Beginning Desktop Publishing
Link to Programme of study	<b>Computer Science</b>	<b>Digital Literacy – inc. online safety</b>	<b>Computer Science</b>	<b>Digital Literacy – inc. online safety</b>	<b>Digital Literacy – inc. online safety</b>
Composite knowledge	<p>Computers work by following algorithms</p> <p>Algorithms need to be clear and precise in order for them to be successful</p> <p>Algorithms are programmed into computers</p> <p>We use a shared language called code to program computers</p> <p>How to create and debug simple programs in computer code</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Software and apps can be used to create digital artefacts</p> <p>Use the iPad camera to take images and use within apps</p> <p>Can save and retrieve work between sessions</p> <p>Animations are made from a series of images</p> <p>Work carefully and methodically to achieve a specific outcome</p>	<p>Computers work by following algorithms</p> <p>Algorithms need to be clear and precise in order for them to be successful</p> <p>How to create and debug simple programs in computer code</p> <p>Use logical reasoning to predict the behaviour of simple programs</p> <p>Recognise repeated patterns</p>	<p>A web browser is a program for looking at Web pages</p> <p>The World Wide Web is made up of lots of web pages all full of information</p> <p>You can find web pages by using a search engine</p> <p>Web pages are navigated using menus</p> <p>You should keep your personal information safe when online</p>	<p>Software can be used to create digital artefacts</p> <p>Microsoft Word is a program used for creating and editing text based documents</p> <p>Digital documents can be saved and retrieved</p> <p>Folders are a good way to organize documents</p> <p>Recognise some of the key tools icons used for editing tools</p>

<p>Intentional knowledge they need to understand (Component knowledge)</p>	<p>Recognise the importance of clarity and precision in algorithms</p> <p>Challenges can be broken down into smaller steps</p> <p>That the order of the steps in an algorithm is important</p> <p>How to write and test an algorithm using a digital device</p> <p>How to convert simple algorithms into code</p> <p>Read and predict what code will do when run</p> <p>How to program the Probots</p>	<p>Use the iPad camera to take pictures</p> <p>Add images with a different iPad app</p> <p>Give their project a sensible name when saving to help with retrieving their work</p> <p>Animations are made from a series of images shown in sequence</p> <p>Follow steps for working through a project</p> <p>Evaluate their work and suggest ways that it could be made even better</p>	<p>How to write and test an algorithm using a digital device</p> <p>How to program the Probots</p> <p>Recognise the importance of clarity and precision in algorithms</p> <p>That the order of the steps in an algorithm is important</p> <p>How to convert simple algorithms into code</p> <p>Read and predict what code will do when run</p>	<p>How to log on to the computer</p> <p>Which programs are web browsers and how to use them to view web pages</p> <p>How to use search engines to find pages – including finding pages specifically for kids</p> <p>How to use menus to find information using web pages</p> <p>What to look out for when playing online</p> <p>How / who to report concerns to and how to deal with uncomfortable situations</p>	<p>How to plug in and use a mouse</p> <p>How to save work in their documents</p> <p>How to create a folder</p> <p>How to open and edit shared documents</p> <p>Delete and add text to a document</p> <p>Type capital letters and symbols using the keyboard</p> <p>Save files to folders</p> <p>Add images to documents using Online Pictures</p> <p>Use Copy and Paste to move text from one place to another</p>
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<p>National Curriculum KS2 (skills)</p>	<p><b>Key stage 1</b>  <b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>• create and debug simple programs</li> <li>• use logical reasoning to predict the behaviour of simple programs</li> <li>• use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>• recognise common uses of information technology beyond school</li> <li>• 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.</li> </ul>
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Vocabulary	Algorithm Order Debugging Clear Precise Code program	Camera Animation Sequence Frames	Algorithm Order Debugging Clear Precise Code program	Logging on Web Browser Search Engine World Wide Web Webpage Website Personal information	Keyboard Mouse Documents Folder Microsoft Word text
Links to prior knowledge	Writing, testing and debugging algorithms in Year 1: Introducing Algorithms and Algorithms to Programs	Opening and using iPad Apps	Writing, testing and debugging algorithms in Year 1 and Year 2	How to logon to the computer using Usernames and passwords. What counts as personal information	Logging on to the computer  Year 1 opening files saved on the computer

Key Knowledge for Assessment	<p>Can recognize the that algorithms need to be in the correct order</p> <p>Algorithms need to be clear and precise</p> <p>Can write, test and debug algorithms programmed into a digital device</p> <p>Can predict the outcome of simple algorithms</p>	<p>Recognise that an animation is a series of images in sequence</p> <p>Can create a simple animation using an iPad app</p> <p>Evaluate their work and suggest ways to improve it</p>	<p>Can predict the outcome of simple algorithms</p> <p>Can write, test and debug algorithms including programming them into a controllable device</p> <p>Recognises the importance of order and the need for precision and clarity</p>	<p>Can navigate to a given website and use menus to move around</p> <p>Identify different web browsers on their devices</p> <p>Understand who to ask for help if unsure online and what information they should keep safe</p>	<p>Can open, edit and with support save documents created in Microsoft Word</p> <p>Has used different tool for editing text</p> <p>Developing mouse control – specifically, able to select text and use the right-click button</p>
Cross Curricular Links	Math – directional language, sequencing	Art	Maths – direction language, sequencing	RSE – Staying safe online Various subjects – research facts	Literacy – capital letters, full stops, sequencing and presenting written work

Oracy & Outdoor Learning Links					
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