



Computing: Year Group: 2

Prior Learning Year 1	Year 2 Learning	Year 3 Future Learning	Vocabulary - Subject Specific	Linked Vocabulary
<p><b>Computer Science:</b> Pupils understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program. Pupils can work out what is wrong with a simple algorithm when the steps are out of order, and can write their own simple algorithm. Pupils know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code. When looking at a program, pupils can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.</p> <p><b>Information Technology</b> Pupils will begin by using labels to put objects into groups, and labelling these groups. Pupils will demonstrate that they can count a small number of objects, before and after the objects are grouped. They will then begin to demonstrate their ability to sort objects into different groups, based on the properties they choose. Finally, pupils will use their ability to sort objects into different groups to answer questions about data. Pupils will familiarise themselves with typing on a keyboard and begin using tools to change the</p>	<p><b>Computer Science:</b> Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.  Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors. Children's program designs display a growing awareness of the need for logical, programmable steps.  Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.</p> <p><b>Information Technology</b> Pupils will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real. Pupils are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work using the Purple Mash application '2Count'.</p> <p><b>Digital Literacy:</b> Pupils explore how IT benefits society in places such as shops, libraries, and hospitals.</p>	<p><b>Computer Science:</b> Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it. Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects. Children understand how variables can be used to store information while a program is executing. Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. Pupils compare digital and non-digital devices, before being introduced to computer networks that include network infrastructure devices like routers and switches.</p> <p><b>Information Technology</b> Pupils will carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or internet-wide search</p>	<p>Attachment, Digital Footprint, email, filter, internet, personal information, private information, search, sharing, domain, internet, network, search engine, web address, web page, World Wide Web, web site, Action, algorithm, background, bug, button, click events, collision detection, command, event, debug/ debugging, execute, implement, instructions, interaction, interval, object, output, properties, run, block graph, cell, column, copy, count tool, data, equals, label, row, table, total, fact file, fiction, mind map, non-fiction, presentation, quiz</p>	<p>filter, personal information, private information, sharing, footprint, network, search, address, action, background, bug, button, collision, command, event, execute, implement, instructions, interaction, interval, object, output, properties, run, block graph, cell, column, copy, count tool, data, equals, label, row, table, total, fact file, fiction, mind map, non-fiction, presentation, quiz</p>

<p>look of their writing, and then they will consider the differences between using a computer and writing on paper to create text.</p> <p><b>Digital Literacy:</b> Pupils will become more familiar with the different components of a computer by developing their keyboard and mouse skills, and also start to consider how to use technology responsibly.</p>	<p>Whilst discussing the responsible use of technology, and how to make smart choices when using it.</p>	<p>engines. Pupils will use slide show software to create a presentation. They will learn how to add pages, include media, customize animations and add timings. Pupils will create their own 'branching database' and be able to sort objects using 'yes' or 'no' questions.</p> <p><b>Digital Literacy:</b> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact See 'Online Safety'.</p>		
Common Misconceptions		Key Questions:		Famous People Links
<ul style="list-style-type: none"> <li>Misunderstanding of key vocabulary.</li> <li>Conducting accurate searches.</li> <li>Differences between emails and texts.</li> <li>Concept of digital footprint.</li> <li>Using the 'undo' function.</li> <li>The concept of 'coding'.</li> </ul>	<ul style="list-style-type: none"> <li>Why is a search bar useful?</li> <li>What is an email?</li> <li>What is meant by my Digital Footprint?</li> <li>How can I search the Internet?</li> <li>What is an algorithm? Why is it useful in coding?</li> <li>Why is it important to know there are different object types?</li> <li>If you are good at coding, you don't need to debug. Is this true?</li> <li>Why would you copy and paste when using a spreadsheet?</li> <li>How could a spreadsheet help you when you are planning some shopping?</li> <li>Look at the graph made in 2Calculate showing the class' favourite pets. Which is the most popular?</li> <li>What do we need to think about when planning a presentation?</li> <li>Why should I plan out my presentation?</li> </ul>	<ul style="list-style-type: none"> <li>Charles Babbage – First person to make a mechanical computer.</li> <li>Alan Turing – Mathematician who famously helped break Germany's Enigma code by design a computer to decipher the code.</li> <li>John Von Neumann – Mathematician who developed computer architecture. E.g. memory (RAM).</li> <li>Douglas Engelbart – pioneer in the development of modern computers.</li> <li>Steve Jobs – Co-founder of Apple which invented iPad, iPhone, Apple Mac.</li> <li>Philip Don Estridge – Developed the first IBM personal computer which paved the way for universal parts/ peripherals.</li> <li>Bill Gates – Founder of Microsoft.</li> <li>Tim Berners-Lee – invented the WWW.</li> <li><a href="https://www.sutori.com/en/story/famous-people-in-computer-history--TcHp7hWrDd1ZpLW2zQfxCs5h">https://www.sutori.com/en/story/famous-people-in-computer-history--TcHp7hWrDd1ZpLW2zQfxCs5h</a></li> </ul>		
Assessment Opportunities/Final Assessment				
<ul style="list-style-type: none"> <li>FFT – Termly Assessments</li> <li>Continuous assessment (AFL / formative).</li> </ul>				