



**Knowledge and Skills – Progression Ladder**

**Subject: Computing  
Years 1-6**

| Subject: Computing<br>Years 1-6            |   |   |   |   |        |        |        |
|--|---|---|---|---|--------|--------|--------|
| YEAR GROUP                                 | EYFS  | YEAR 1  | YEAR 2  | YEAR 3  | YEAR 4 | YEAR 5 | YEAR 6 |
| Digital Literacy –<br>Hardware/Secretarial | <ul style="list-style-type: none"> <li>Learn and use new vocabulary.</li> <li>Develop their small motor skills so that they can use a range of tools competently, safely and confidently for using keys on a key board, pressing/scrolling/clicking/turning buttons.</li> </ul> | <ul style="list-style-type: none"> <li>To know the hardware parts of computer – monitor, laptop, mouse, keyboard, left click, right click.</li> </ul> | <ul style="list-style-type: none"> <li>To know the hardware parts of computer – monitor, laptop, mouse, keyboard, left click, right click, USB, floppy disk, CD.</li> <li>Understand the history of portable storage – floppy disk-CD-USB.</li> </ul> | <ul style="list-style-type: none"> <li>Use a trackpad on a laptop.</li> </ul> |        |        |        |



### Knowledge and Skills – Progression Ladder

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|  |  | <ul style="list-style-type: none"> <li>To know that caps lock can be used when writing words and sentences in capitals.</li> <li>Use a 'qwerty' keyboard (letters and simple punctuation).</li> <li>Be able to use the shift button instead of caps lock.</li> <li>Know that keyboards are in capital letters.</li> </ul> | <ul style="list-style-type: none"> <li>To know that caps lock can be used when writing words and sentences in capitals.</li> <li>Use a 'qwerty' keyboard (letters and further punctuation).</li> <li>Understand simple functions of the keyboard.</li> <li>Use a mouse (inc. left and right click, scroll and move).</li> <li>Be able to use the shift button instead of caps lock.</li> <li>Know that keyboards are in capital letters.</li> <li>Know how to use font size.</li> <li>Know how to use underline and bold.</li> <li>Know that changes to writing happen through software rather than hardware.</li> </ul> | <ul style="list-style-type: none"> <li>Use number lock for typing lists of numbers or calculations.</li> </ul> | <ul style="list-style-type: none"> <li>Extend knowledge of the keyboard (function keys, shift for punctuation, tab, windows etc.).</li> </ul> | <ul style="list-style-type: none"> <li>Extend knowledge of the keyboard (function keys, shift for punctuation, tab, windows etc.).</li> </ul> | <ul style="list-style-type: none"> <li>Extend knowledge of the keyboard (function keys, shift for punctuation, tab, windows etc.).</li> </ul> |
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Knowledge and Skills – Progression Ladder

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|  |  |  | <ul style="list-style-type: none"><li>Know that you can make changes to text by selecting and executing a change (font size, bold and underline).</li></ul> |  |  |  |  |
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### Knowledge and Skills – Progression Ladder

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|---|---|---|--|--|--|--|--|
| <p><b>Digital Literacy – Keeping Safe</b></p> | <ul style="list-style-type: none"> <li>• Ask and adult for permission when using technology.</li> </ul> | <ul style="list-style-type: none"> <li>• Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> <li>• Understand what a passcode is, why we use them and how to use a passcode safely.</li> <li>• Understand what acceptable content is.</li> <li>• Use technology safely and respectfully, keeping personal information private.</li> <li>• Be able to login using a username and password/passcode.</li> <li>• Begin to use SMART principle to help remember the aspects of online safety (see Appendix 1).</li> <li>• Know what to do when unacceptable content appears.</li> </ul> | <ul style="list-style-type: none"> <li>• Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> <li>• Understand what a passcode is, why we use them and how to use a passcode safely.</li> <li>• Understand what acceptable content is.</li> <li>• Use technology safely and respectfully, keeping personal information private.</li> <li>• Be able to login using a username and password/passcode.</li> <li>• Use SMART principle to help remember the aspects of online safety (see Appendix 1).</li> </ul> | <ul style="list-style-type: none"> <li>• Identify a range of ways to report concerns about content and contact.</li> <li>• Use technology safely, respectfully and responsibly.</li> <li>• Recognise acceptable/unacceptable behaviour.</li> <li>• Know SMART principle to help remember the aspects of online safety (see Appendix 1).</li> </ul> | <ul style="list-style-type: none"> <li>• Identify a range of ways to report concerns about content and contact.</li> <li>• Use technology safely, respectfully and responsibly.</li> <li>• Recognise acceptable/unacceptable behaviour.</li> <li>• Know SMART principle to help remember the aspects of online safety (see Appendix 1).</li> </ul> | <ul style="list-style-type: none"> <li>• Identify a range of ways to report concerns about content and contact.</li> <li>• Use technology safely, respectfully and responsibly.</li> <li>• Recognise acceptable/unacceptable behaviour.</li> <li>• Know SMART principle to help remember the aspects of online safety (see Appendix 1).</li> </ul> | <ul style="list-style-type: none"> <li>• Identify a range of ways to report concerns about content and contact.</li> <li>• Use technology safely, respectfully and responsibly.</li> <li>• Recognise acceptable/unacceptable behaviour.</li> <li>• Know SMART principle to help remember the aspects of online safety (see Appendix 1).</li> </ul> |
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|  |   | <ul style="list-style-type: none"> <li>Know how to log out of a computer.</li> </ul>  | <ul style="list-style-type: none"> <li>Know what to do when unacceptable content appears.</li> <li>Know how to log out of a computer.</li> </ul>   |   |   |   |   |
| <b>Digital Literacy – World Wide Web</b> |   | <ul style="list-style-type: none"> <li>To know that the World Wide Web and internet help us to communicate.</li> </ul>              | <ul style="list-style-type: none"> <li>To know that the World Wide Web and internet help us to communicate.</li> </ul>   | <ul style="list-style-type: none"> <li>Know the different methods of communication within the World Wide Web (email).</li> </ul>  | <ul style="list-style-type: none"> <li>Know the different methods of communication within the World Wide Web (information pages).</li> </ul>                                    | <ul style="list-style-type: none"> <li>Know the different methods of communication within the World Wide Web (blogs and chat channels).</li> </ul>                              | <ul style="list-style-type: none"> <li>Know the different methods of communication within the World Wide Web (chat channels).</li> </ul>  |
| <b>Computer Science - Algorithms</b>     | <ul style="list-style-type: none"> <li>Ask questions to find out more and to check they understand what has been said to them.</li> <li>Use talk to help work out problems and organise thinking and activities, and to explain how things</li> </ul> | <ul style="list-style-type: none"> <li>Begin to understand what algorithms are – understand algorithms are instructions.</li> </ul> | <ul style="list-style-type: none"> <li>Understand what algorithms are – understand algorithms are instructions.</li> <li>Understand how algorithms are implemented as programs on digital devices; and that programs execute by following precise and unambiguous</li> </ul> | <ul style="list-style-type: none"> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> </ul> | <ul style="list-style-type: none"> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> </ul> | <ul style="list-style-type: none"> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> </ul> | <ul style="list-style-type: none"> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> </ul> |



**Knowledge and Skills – Progression Ladder**

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|                                      | <ul style="list-style-type: none"> <li>work and why they might happen.</li> <li>Show resilience and perseverance in the face of challenge.</li> <li>Cause and effect: when I press this – this will happen.</li> </ul> |   | <p>instructions (algorithms).</p>   |  |  |  |  |
| <b>Computer Science: Programming</b> | <ul style="list-style-type: none"> <li>Continue, copy and create repeating patterns.</li> </ul>  | <ul style="list-style-type: none"> <li>Give instructions (guide someone around the room/write a set of instructions).</li> <li>Use a bee bot.</li> <li>Create and debug simple programs.</li> </ul> |   | <ul style="list-style-type: none"> <li>To know what an input is and how to work with them.</li> </ul>  | <ul style="list-style-type: none"> <li>To know what an input is and how to work with them.</li> </ul>  | <ul style="list-style-type: none"> <li>To know what an input is and how to work with various forms of them.</li> </ul>                                 | <ul style="list-style-type: none"> <li>Work with variables and various forms of input and output.</li> </ul>   |
|                                      |  |   | <ul style="list-style-type: none"> <li>Create and debug a range of simple programs.</li> <li>Use logical reasoning to predict the behaviour of</li> </ul> | <ul style="list-style-type: none"> <li>Design, write and debug programs that accomplish specific goals, including controlling or simulating</li> </ul> | <ul style="list-style-type: none"> <li>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.</li> </ul> | <ul style="list-style-type: none"> <li>Design, write and debug programs that accomplish specific goals, including controlling or simulating</li> </ul> | <ul style="list-style-type: none"> <li>Design, write and debug programs that accomplish specific goals, including controlling or simulating</li> </ul> |



### Knowledge and Skills – Progression Ladder

|  |  |  | simple<br>programs. | physical<br>systems.   |  | physical<br>systems.   | physical<br>systems.   |
|--|--|--|---------------------|--|--|--|--|
|  |  |  |                     | <ul style="list-style-type: none"> <li>Use sequence, selection, and repetition in programs.</li> </ul> | <ul style="list-style-type: none"> <li>Solve problems by decomposing them into smaller parts.</li> <li>Use sequence, selection, and repetition in programs.</li> </ul> | <ul style="list-style-type: none"> <li>Use sequence, selection, and repetition in programs.</li> </ul> | <ul style="list-style-type: none"> <li>Solve problems by decomposing them into smaller parts.</li> <li>Use sequence, selection, and repetition in programs.</li> </ul> |



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|--|--|---|--|---|--|--|--|
| <b>Computer Science –<br/>World Wide Web</b> |  |   |  | <ul style="list-style-type: none"> <li>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.</li> <li>To know the difference between the World Wide Web and internet.</li> </ul> | <ul style="list-style-type: none"> <li>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.</li> </ul> | <ul style="list-style-type: none"> <li>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.</li> </ul> | <ul style="list-style-type: none"> <li>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.</li> </ul> |
| <b>Information Technology</b>                |  | <ul style="list-style-type: none"> <li>Recognise common uses of information technology within and beyond school.</li> </ul> |  |   |  |  |  |





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|--|--|---|--|--|--|--|--|
|  |  | <ul style="list-style-type: none"> <li>To recognise a search engine and use it effectively.</li> </ul>  | <ul style="list-style-type: none"> <li>To know and understand the difference between a search engine and a website.</li> </ul>   | <ul style="list-style-type: none"> <li>Use search technologies effectively.</li> </ul>   | <ul style="list-style-type: none"> <li>Use search technologies effectively.</li> <li>Use search technologies effectively, appreciate how results are selected and ranked.</li> <li>Be discerning in evaluating digital content.</li> </ul>   | <ul style="list-style-type: none"> <li>Use search technologies effectively.</li> <li>Use search technologies effectively, appreciate how results are selected and ranked.</li> <li>Be discerning in evaluating digital content.</li> </ul>   | <ul style="list-style-type: none"> <li>Use search technologies effectively.</li> <li>Use search technologies effectively and accurately, appreciate how results are selected and ranked.</li> </ul>  |
|  |  | <ul style="list-style-type: none"> <li>Begin to use technology</li> <li>purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>Save work.</li> </ul> | <ul style="list-style-type: none"> <li>Use technology purposefully to create, organise, store, manipulate and retrieve digital content (using a range of devices – desktop, iPad, IWB).</li> </ul> | <ul style="list-style-type: none"> <li>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and</li> </ul> | <ul style="list-style-type: none"> <li>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, evaluating and presenting data and information.</li> </ul> | <ul style="list-style-type: none"> <li>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and</li> </ul> | <ul style="list-style-type: none"> <li>Be discerning in evaluating digital content.</li> <li>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including</li> </ul> |



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|                  |  |   |   |   |  |  |   |
|------------------|--|---|---|---|--|--|---|
|                  |  |   | <ul style="list-style-type: none"> <li>Save, retrieve and print work.</li> </ul>  | <p>presenting data and information.</p> <ul style="list-style-type: none"> <li>Be able to save documents in different locations.</li> </ul> | <ul style="list-style-type: none"> <li>Know that cloud saving (Google Drive) can be accessed from any device.</li> </ul> | <p>presenting data and information.</p> <ul style="list-style-type: none"> <li>Know that cloud saving (google drive) can be accessed from any device.</li> </ul> | <p>collecting, analysing, evaluating and presenting data and information.</p> <ul style="list-style-type: none"> <li>Know the different locations for shared drives.</li> </ul> |
| Google Classroom |  | <ul style="list-style-type: none"> <li>Know how to log in to Google Classroom and join Google Meet</li> </ul> | <ul style="list-style-type: none"> <li>Be able to retrieve and upload work to/from Google Classroom.</li> <li>Be able to access and use the Chat function in GC appropriately.</li> </ul> | <ul style="list-style-type: none"> <li>Be able to retrieve and upload work to Google Classroom.</li> </ul>                                  | <ul style="list-style-type: none"> <li>Be able to retrieve and upload work to Google Classroom.</li> </ul>               |  |   |