

| Year 1                                                                                                                                                                                   | National Curriculum Links                                                                                                                                                                                                                                                                                                                                      | Working Towards                                                                                                                                                                                        | Meeting                                                                                                                                                                                                                                                                              | Greater Depth                                                                                                                                                                                                                                                                                                                                                      |
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| <b>iAlgorithm</b><br>  | <ul style="list-style-type: none"> <li>understand what algorithms are; how they are how implemented as programs on digital devices</li> <li>understand that programs execute by following precise and unambiguous instructions</li> <li>use logical reasoning to predict the behaviour of simple programs</li> <li>create and debug simple programs</li> </ul> | <ul style="list-style-type: none"> <li>Read a set of instructions and sometimes predict the correct outcome</li> <li>Produce instructions but sequence them incorrectly or make assumptions</li> </ul> | <ul style="list-style-type: none"> <li>Read a set of instructions and usually predict the correct outcome</li> <li>Give simple instructions to make things happen and understand that this is called an algorithm</li> <li>Make changes to instructions if they are wrong</li> </ul> | <ul style="list-style-type: none"> <li>Plan and give clear instructions to make things happen</li> <li>Give instructions using an agreed format</li> <li>Use algorithms to solve simple problems</li> <li>Produce a sequence of instructions that result in planned outcomes</li> <li>Debug a sequence of instructions when things do not go as planned</li> </ul> |
| <b>iProgram</b><br>                                                                                     | <ul style="list-style-type: none"> <li>understand that programs execute by following precise and unambiguous instructions</li> <li>use logical reasoning to predict the behaviour of simple programs</li> <li>create and debug simple programs</li> <li>recognise common uses of information technology beyond school</li> </ul>                               | <ul style="list-style-type: none"> <li>Read a set of instructions and sometimes predict the correct outcome</li> <li>Produce instructions but sequence them incorrectly or make assumptions</li> </ul> | <ul style="list-style-type: none"> <li>Read a set of instructions and usually predict the correct outcome</li> <li>Produce a set of instructions that others can usually follow</li> </ul>                                                                                           | <ul style="list-style-type: none"> <li>Read a set of instructions and predict the correct outcome</li> <li>Produce an accurate set of instructions using agreed language that others can follow</li> </ul>                                                                                                                                                         |
| <b>iWrite</b><br>  | <ul style="list-style-type: none"> <li>To use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>Recognise common uses of information technology beyond school</li> </ul>                                                                                                                                    | <ul style="list-style-type: none"> <li>Type words using a keyboard</li> <li>Use a word bank to create simple sentences with support</li> <li>Open, save and print documents with support</li> </ul>    | <ul style="list-style-type: none"> <li>Type simple sentences using a keyboard</li> <li>Use a word bank to construct meaningful sentences</li> <li>Open, save and print documents</li> </ul>                                                                                          | <ul style="list-style-type: none"> <li>Use software applications to create meaningful sentences</li> <li>Use a keyboard and word bank confidently</li> </ul>                                                                                                                                                                                                       |
| <b>iData</b><br>                                                                                      | <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>collect simple data</li> <li>organise data into simple charts and graphs, sometimes with help</li> </ul>                                                        | <ul style="list-style-type: none"> <li>collect data and construct simple charts and graphs</li> <li>make observations about graphs</li> </ul>                                                                                                                                        | <ul style="list-style-type: none"> <li>collect data and construct charts with more sets of data</li> <li>use graphs to answer a range of questions</li> </ul>                                                                                                                                                                                                      |



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|                                                                                                    |                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>answer questions using a simple graph</li> <li>use a graphing tool to select appropriate icons, recognise quantities and create a pictogram</li> </ul>                                                                                                                                             | <ul style="list-style-type: none"> <li>answer simple questions using graphs</li> <li>make statements about the information simple graphs tell them</li> <li>ask questions about graphs</li> <li>enter information into a graphing tool</li> </ul>                                                                                                                                                                 | <ul style="list-style-type: none"> <li>create their own questions that can be answered using a graph</li> <li>make comparisons between data on a graph</li> <li>use a graphing tool to select appropriate icons; recognise quantities and create a pictogram; make comparisons, such as 'twice as many'</li> </ul> |
| <b>iModel</b><br> | <ul style="list-style-type: none"> <li>To use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul>                                                                     | <ul style="list-style-type: none"> <li>Use a mouse to point, click, and drag objects around a screen with support</li> <li>Make simple choices about pictures on a screen</li> <li>Navigate to a specific page with support</li> <li>Print work with support</li> </ul>                                                                   | <ul style="list-style-type: none"> <li>Confidently use a mouse to point, click and drag objects around a screen</li> <li>Make choices, explore alternatives and discuss those made</li> <li>Navigate a selection of related pages</li> <li>Add simple labels to images</li> <li>Print work</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>Communicate accurately to others aspects of specific screens and resources</li> <li>Learn independently how to use specific resource and screens</li> <li>Explain how alternative choices may affect outcomes</li> </ul>                                                    |
| <b>iDraw</b><br> | <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>recognise common uses of information technology beyond school</li> </ul> | <ul style="list-style-type: none"> <li>have explored a limited range of digital drawing tools</li> <li>choose appropriate shapes for digital art</li> <li>know that different paint tools do different jobs</li> <li>understand that digital tools can be useful for creating art</li> <li>save and retrieve work with support</li> </ul> | <ul style="list-style-type: none"> <li>use the shape and line tools effectively</li> <li>use appropriate shape and colours in digital art</li> <li>use appropriate paint tools to create particular effects</li> <li>be able to compare creating a picture using computers with manual methods</li> <li>talk about how they have used the computer to create a picture</li> <li>save and retrieve work</li> </ul> | <ul style="list-style-type: none"> <li>be able to explain why a particular tool has been chosen and its effect</li> <li>explain which paint tools were helpful and why for creating digital art</li> <li>talk about their preferences</li> <li>reflect on their work and act on feedback to improve it</li> </ul>  |



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| <b>iLearnAI</b><br> | <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>recognise common uses of information technology beyond school</li> </ul> | <ul style="list-style-type: none"> <li>knows that machines can appear to be 'smart'</li> <li>understands AI is part of everyday life but sometimes struggle to provide examples</li> <li>can follow simple commands in role-play but may need assistance</li> <li>can sort information but sometimes require guidance</li> <li>can use simple AI tools with support</li> </ul> | <ul style="list-style-type: none"> <li>knows AI systems are trained by humans and can simulate intelligence and can sometimes make mistakes</li> <li>can give and follow commands in role-play exercises</li> <li>can categorise information accurately using the criteria</li> <li>can talk about examples of AI in everyday life, such as smart speakers or robotic vacuums</li> <li>can use simple AI tools (e.g. to draw and write)</li> </ul> | <ul style="list-style-type: none"> <li>knows computers can simulate intelligence</li> <li>knows that AI systems learn from examples</li> <li>understands AI can be unreliable and it needs to be checked</li> <li>knows AI can assist in creative tasks and simulate intelligence</li> </ul> |



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| <b>iSafe</b><br> | <ul style="list-style-type: none"> <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> <li>recognise common uses of information technology beyond school</li> </ul> | <ul style="list-style-type: none"> <li>Knows that some information is personal (E.g. name &amp; address)</li> <li>Can identify some characteristics of trustworthy/untrustworthy people but gives inappropriate justification (E.g. trustworthy because they are being nice)</li> <li>Understands that personal information should only be given to trusted people but the trust can be misplaced (see above)</li> <li>Understands that sharing pictures may sometimes not be appropriate and can have negative consequences</li> <li>Understands that people can sometimes be mean online</li> </ul> | <ul style="list-style-type: none"> <li>Understand that various information is personal (E.g. hobbies)</li> <li>Can usually identify characteristics of trustworthy people</li> <li>Know that personal information should only be given to trusted people</li> <li>Can give examples of when it may and may not be appropriate to share pictures</li> <li>Knows that people can bully and be bullied online</li> </ul> | <ul style="list-style-type: none"> <li>Understands that a wider range of information is personal (E.g. regular attendance at a specific place)</li> <li>Can identify a variety of characteristics of trustworthy people and justifies opinions appropriately</li> <li>Knows that personal information should only be given to trusted people</li> <li>Understands the potential negative consequences of sharing a range of digital media and information online</li> <li>Can identify a range of bullying behaviours and talk about a number of ways to deal with them</li> </ul> |



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| <b>iProgram</b><br>                                                                                  | <ul style="list-style-type: none"> <li>understand that programs execute by following precise and unambiguous instructions</li> <li>use logical reasoning to predict the behaviour of simple programs</li> <li>create and debug simple programs</li> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul>               | <ul style="list-style-type: none"> <li>Know that Scratch can be given commands to produce specific effects on screen</li> <li>Produce a command that achieves a simple effect (E.g. movement)</li> </ul>                                                                                                                                                           | <ul style="list-style-type: none"> <li>Execute short a sequence of commands that results in an effect</li> <li>Move a sprite in one direction on screen using steps</li> <li>Program and test a simple program</li> </ul>                                                                                                       | <ul style="list-style-type: none"> <li>Program a sequence of commands that results in a number of planned effects</li> <li>Test and correct simple programs</li> <li>Evaluate their own work and comment on improvements</li> </ul>                                                                                                                                           |
| <b>iSearch</b><br>  | <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</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> | <ul style="list-style-type: none"> <li>Use a link to access a website</li> <li>Navigate a website using hyperlinks</li> <li>Find out answers to questions using a website with help</li> </ul>                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Use a link to find a website</li> <li>Confidently navigate a website</li> <li>Select information in a website</li> <li>Find answers to questions using a website</li> <li>Discuss their findings</li> </ul>                                                                              | <ul style="list-style-type: none"> <li>Make decisions about how useful a website is for a purpose</li> <li>Demonstrate how they found specific information in a website</li> <li>Make choices about the kind of information they collect from websites</li> </ul>                                                                                                             |
| <b>iAnimate</b><br>                                                                                 | <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul>                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>understand showing pictures quickly can look like movement</li> <li>plan a simple stop-motion scene with support</li> <li>create a simple script with support</li> <li>produce a short stop-motion animated scene using digital tools with support</li> <li>talk about what they like/dislike about an animation</li> </ul> | <ul style="list-style-type: none"> <li>Know that that stop-motion animations are created by capturing images with small movements in between each image</li> <li>Understand that showing images rapidly with small changes in between simulates motion</li> <li>plan a short animated scene using a basic storyboard</li> </ul> | <ul style="list-style-type: none"> <li>know that animations consist of a number of different images that are played rapidly</li> <li>plan an animated scene for an audience using a detailed storyboard</li> <li>Use a storyboard to created a detailed script for an animated scene</li> <li>produce a simple stop-motion animated scene using animation software</li> </ul> |



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| <p>iPub</p>   |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>create a simple script based on a storyboard</li> <li>create an short stop-motion animated scene using digital tools</li> </ul>                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>add effects to enhance a simple stop-motion animation</li> <li>edit own work to make improvements</li> </ul>                                                                                                                                                                                                                   |
|                                                                                                | <ul style="list-style-type: none"> <li>To use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul>                                                                                                  | <ul style="list-style-type: none"> <li>Combine text and images to give basic information on a given topic</li> <li>Save and retrieve work, sometimes with assistance</li> <li>Talk about how they have used software to create their work</li> </ul>                          | <ul style="list-style-type: none"> <li>Combine, text, images and audio to provide information on a topic</li> <li>Edit to improve, including using text styling and adding appropriate images</li> <li>Publish eBooks</li> </ul>                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Combine a variety of multimedia to give information for an intended audience</li> <li>Experiment with visual effects such as text and image styles</li> <li>Provide audio narration about a topic using appropriate vocabulary</li> <li>Add hyperlinks to text to link to appropriate websites</li> </ul>                      |
| <p>iBlog</p>  | <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</li> </ul> | <ul style="list-style-type: none"> <li>Write simple blog posts sometimes with support</li> <li>Read the posts/comments written by others with support</li> <li>Write comments on a blog with support</li> <li>Know that passwords should not be shared with others</li> </ul> | <ul style="list-style-type: none"> <li>Write simple blog posts on a given topic</li> <li>Respond appropriately to a blog and keep on topic</li> <li>Edit blog posts and/or responses to posts to communicate meaning (e.g. use spaces between words, adding new lines)</li> <li>Understand the importance of keeping passwords and personal information private when online</li> <li>Be respectful online</li> </ul> | <ul style="list-style-type: none"> <li>Write blog posts on given topic</li> <li>Consider the audience when choosing vocabulary in their posts</li> <li>Use titles, subtitles and paragraphs in posts</li> <li>Experiment with different font styles and colours</li> <li>Enhance posts with multimedia (e.g. add images, audio, videos or hyperlinks etc.)</li> </ul> |



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| <p>iDo Mail</p>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Know that some information is personal and should not be shared online – incl. passwords as well as personal information that could identify themselves or their whereabouts</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                   | <ul style="list-style-type: none"> <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> | <ul style="list-style-type: none"> <li>understand that they should not use email without permission</li> <li>understand that they should never talk online to a stranger</li> <li>with support compose and send a simple email</li> </ul> | <ul style="list-style-type: none"> <li>know they should not speak to strangers online</li> <li>understand they should not open or reply to emails without permission</li> <li>compose and send a simple email</li> <li>read and reply to an email</li> <li>send an email with an attachment</li> <li>talk about why and when they think email would be useful</li> </ul> | <ul style="list-style-type: none"> <li>understand some of the potential dangers associated with sending and receiving email</li> <li>always ask permission before using email apps</li> <li>compose and send emails that include more content</li> <li>compose and send emails that include a variety of media (e.g. text and images)</li> <li>talk about the advantages and disadvantages of email</li> <li>understand the circumstances whereby different forms of communication would be better than others (i.e. face-to-face; telephone; written word; electronic)</li> </ul> |



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| <b>iSafe</b><br> | <ul style="list-style-type: none"> <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> <li>recognise common uses of information technology beyond school</li> </ul> | <ul style="list-style-type: none"> <li>Knows that some information is personal (E.g. name &amp; address)</li> <li>Can identify some characteristics of trustworthy/untrustworthy people but gives inappropriate justification (E.g. trustworthy because they are being nice)</li> <li>Understands that personal information should only be given to trusted people but the trust can be misplaced (see above)</li> <li>Understands that sharing pictures may sometimes not be appropriate and can have negative consequences</li> <li>Understands that people can sometimes be mean online</li> </ul> | <ul style="list-style-type: none"> <li>Understand that various information is personal (E.g. hobbies)</li> <li>Can usually identify characteristics of trustworthy people</li> <li>Know that personal information should only be given to trusted people</li> <li>Can give examples of when it may and may not be appropriate to share pictures</li> <li>Knows that people can bully and be bullied online</li> </ul> | <ul style="list-style-type: none"> <li>Understands that a wider range of information is personal (E.g. regular attendance at a specific place)</li> <li>Can identify a variety of characteristics of trustworthy people and justifies opinions appropriately</li> <li>Knows that personal information should only be given to trusted people</li> <li>Understands the potential negative consequences of sharing a range of digital media and information online</li> <li>Can identify a range of bullying behaviours and talk about a number of ways to deal with them</li> </ul> |



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| <b>iProgram</b><br>  | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems: solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <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>Know that Scratch can be given commands to produce specific effects on screen</li> <li>Produce a sequence of blocks that achieves a simple effect (Eg. move a sprite around the screen)</li> </ul>                                                                                                     | <ul style="list-style-type: none"> <li>Execute a sequence of commands that results in a planned effect</li> <li>Move a sprite around a screen using turns and repetition</li> <li>Program and test a simple program</li> </ul>                                                                                                                                                           | <ul style="list-style-type: none"> <li>Design and produce basic programs</li> <li>Combine sequences of commands into procedures that are repeated</li> <li>Test and correct simple animations</li> <li>Evaluate their own work and comment on improvements</li> </ul>                                                                                                                   |
| <b>iSimulate</b><br> | <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</li> </ul>                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>recognise patterns within simulations</li> <li>make and test predictions</li> </ul>                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>use simulations to make and test predictions</li> <li>explore options</li> </ul>                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>identify the relationships and rules on which the simulations are based</li> <li>test predictions</li> </ul>                                                                                                                                                                                                                                     |
| <b>iNetwork</b><br>  | <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>recognise that a network is two or more devices connected</li> <li>can identify some devices on a network with support</li> <li>understand that not all devices need a wire</li> <li>understand that information travels through a network</li> <li>understand that devices have an address</li> </ul> | <ul style="list-style-type: none"> <li>demonstrate that a network is two or more devices connected</li> <li>can identify different devices within a network</li> <li>understand that connections can be wired or wireless</li> <li>know that each device on a network has its own address</li> <li>model how information travels through a network using switches and routers</li> </ul> | <ul style="list-style-type: none"> <li>explain why networks are used and what they're used for</li> <li>identify a range of wired and wireless devices on a network</li> <li>explain the role of devices on a network</li> <li>know that each device has a unique address called an IP address</li> <li>know that information travels through a network in a variety of ways</li> </ul> |



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| <b>iData</b><br>      |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>explain that networks connect to the internet through routers and telephone wires</li> <li>understand that website addresses are nicknames for IP addresses</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 presenting data and information</li> </ul> | <ul style="list-style-type: none"> <li>know that information can be entered and stored in a computer</li> <li>enter information into a database and save with support</li> <li>use search tool to find answers to specific questions with support</li> </ul>                    | <ul style="list-style-type: none"> <li>know that databases and graphs are used for different purposes</li> <li>collect data from the Internet (or electronic source) to enter in to a database</li> <li>enter data in the appropriate fields using keywords or keyboard</li> <li>enter information into the database and save</li> <li>use search tool to find answers to specific questions</li> </ul> | <ul style="list-style-type: none"> <li>use the search facility and navigational buttons to find the answer to a variety of questions</li> <li>pose own questions to be answered by searching a database</li> </ul>                                                         |
| <b>iConnect</b><br> | <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 that a computer network means connected computers</li> <li>Understand that you can use the internet for activities other than web browsing</li> <li>Navigate around a website using hyperlinks and the back button</li> </ul> | <ul style="list-style-type: none"> <li>Know that a computer network consists of a number of computers and devices that are connected</li> <li>Suggest a range of activities you can do using the internet, including web browsing</li> <li>Find information by navigating around a number of websites using hyperlinks and buttons</li> </ul>                                                           | <ul style="list-style-type: none"> <li>Write blog posts on given topic</li> <li>Consider the audience when choosing vocabulary in their posts</li> <li>Use titles, subtitles and paragraphs in posts</li> <li>Experiment with different font styles and colours</li> </ul> |



| Year 3                                                                                                 | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                               | Working Towards                                                                                                                                                                                                                           | Meeting                                                                                                                                                                                                                                                                                                                                                                  | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Enter URLs into an address bar of a browser with support</li> <li>Know that not all information on the web is correct</li> <li>Know that internet search engines search for websites</li> </ul>    | <ul style="list-style-type: none"> <li>Enter URLs into the address bar of a browser not always accurately</li> <li>Question the credibility of information given on websites</li> <li>Know that internet search engines give a list of websites based on key words</li> <li>Cross-check information provided on one website against that provided on another</li> </ul>  | <ul style="list-style-type: none"> <li>Enhance posts with multimedia (e.g. add images, audio, videos or hyperlinks etc.)</li> <li>Know that some information is personal and should not be shared online – incl. passwords as well as personal information that could identify themselves or their whereabouts</li> </ul>                                                                                                 |
| <b>iDo Mail</b><br>   | <ul style="list-style-type: none"> <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> | <ul style="list-style-type: none"> <li>understand that they should not use email without permission</li> <li>understand that they should never talk online to a stranger</li> <li>with support compose and send a simple email</li> </ul> | <ul style="list-style-type: none"> <li>know they should not speak to strangers online</li> <li>understand they should not open or reply to emails without permission</li> <li>compose and send a simple email</li> <li>read and reply to an email</li> <li>send an email with an attachment</li> <li>talk about why and when they think email would be useful</li> </ul> | <ul style="list-style-type: none"> <li>Confidently enter URLs into the address bar of a browser</li> <li>Use appropriate search criteria to find relevant information online</li> <li>Understand that search engines rank websites using algorithms</li> <li>Know which websites are more likely to be reliable than others and explain why</li> <li>Evaluate websites for accuracy, reliability and relevance</li> </ul> |
| <b>iPodcast</b><br> | <ul style="list-style-type: none"> <li>Select, use and combine a variety of software 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 presenting data and information</li> </ul>                                                                                                                                                | <ul style="list-style-type: none"> <li>Record and play audio using digital devices</li> <li>Make simple edits to audio recordings with support</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>Plan a podcast</li> <li>Record and play audio using digital devices</li> <li>Make simple edits to audio recordings using software tools</li> <li>Use effects in a podcast</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>Plan and rehearse a podcast</li> <li>Use audio editing tools to develop and refine a recording and adapt it for an audience</li> <li>Combine tracks in an audio recording</li> </ul>                                                                                                                                                                                               |



| Year 3                                                                                     | National Curriculum Links                                                                                                                                                                                                                                                          | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                                                        | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Greater Depth                                                                                                                                                                                                                                                                                                                                                    |
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| iSafe<br> |                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>✎ Create a podcast, with support, that shows some evidence of organisation</li> <li>✎ Talk about what they like about a podcast</li> </ul>                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>✎ Combine two or more tracks in an audio recording</li> <li>✎ Create a podcast that shows awareness of audience</li> <li>✎ Evaluate podcasts and suggest improvements</li> </ul>                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>✎ Use appropriate effects in appropriate parts of a podcast</li> <li>✎ Create a podcast that shows awareness of and engagement with an audience</li> <li>✎ Critically analyse podcasts, identify effects, suggest improvements and improve work</li> </ul>                                                                |
|                                                                                            | <ul style="list-style-type: none"> <li>✎ be discerning in evaluating digital content</li> <li>✎ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li> </ul> | <ul style="list-style-type: none"> <li>✎ understand that people can be influenced online</li> <li>✎ identify physical and emotional feelings associated with discomfort</li> <li>✎ know appropriate people to go to for help using digital tools safely and responsibly</li> <li>✎ be supported in talking about what is appropriate/inappropriate to share online</li> <li>✎ know the need for passwords and that they should be kept safe</li> </ul> | <ul style="list-style-type: none"> <li>✎ To know some of the ways people can be influenced online</li> <li>✎ Understand that some online content may be advertising</li> <li>✎ identify some of the risks of communicating and collaborating online and act to minimise them</li> <li>✎ know ways technology can be used positively and what is appropriate to share online</li> <li>✎ demonstrate the use of basic safety measures when using technology and working online</li> <li>✎ Know the need to use secure passwords and to keep them private</li> </ul> | <ul style="list-style-type: none"> <li>✎ Identify a wider range of ways people can be influenced, pressurised or manipulated online</li> <li>✎ Identify a number of adverts use technology and online services to communicate and collaborate, identify some of the risks and act to minimise them</li> <li>✎ use a range of digital tools positively</li> </ul> |



| Year 4                                                                                                                                                                                 | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Working Towards                                                                                                                                                                                                                                                                                                                                                                                   | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                 | Greater Depth                                                                                                                                                                                                                                                                                                                                     |
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| <b>iProgram</b><br>  | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems: solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <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>Sequence commands to make something happen in a program</li> <li>Identify when it is possible to use repeat commands</li> <li>Talk about what is happening in a program and make predictions</li> <li>Talk about what is going wrong with a program and suggest ways it could be fixed</li> <li>Attempt to fix programs not always successfully</li> </ul> | <ul style="list-style-type: none"> <li>Write and amend computer programs</li> <li>Sequence commands to produce specific effects</li> <li>Use repetition (repeat) and conditions (if..then)</li> <li>Synchronise action using timings and broadcasts</li> <li>Combine sequences of commands into procedures (blocks of code) that are repeated</li> <li>Test computer programs and correct any errors</li> </ul>         | <ul style="list-style-type: none"> <li>Explain how a programmed effect has been achieved</li> <li>Work systematically to create and remix programs</li> <li>Use a range of programming blocks including sequence, selection, repetition, custom blocks &amp; broadcasts (procedures)</li> <li>Test, debug and refine computer programs</li> </ul> |
| <b>iData</b><br>     | <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</li> </ul>                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>know that information can be entered and stored in computer</li> <li>collect data to enter in a database</li> <li>enter data in the appropriate fields of a database</li> </ul>                                                                                                                                                                            | <ul style="list-style-type: none"> <li>know the computer can be used to help search for specific information and answer specific questions</li> <li>collect data, enter into a database and save</li> <li>use the search facility in a database to find the answer to questions</li> <li>carry out searches involving more than one condition to find answers to a variety of questions, sometimes with help</li> </ul> | <ul style="list-style-type: none"> <li>carry searches involving more than one condition to find answers to a variety of questions</li> <li>use the sort facility of a database to answer questions</li> <li>create own questions to be answered by searching a database</li> </ul>                                                                |
| <b>iAnimate</b>                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                   |



| Year 4                                                                                                                                                                           | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                        | Working Towards                                                                                                                                                                                                                                                                                                           | Meeting                                                                                                                                                                                                                                                                                                                                                          | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                | <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</li> </ul>                                                                                                                            | <ul style="list-style-type: none"> <li>understand that animations are created by showing a number of different images quickly</li> <li>plan a simple animation with support</li> <li>produce a simple animation using digital tools with support</li> <li>talk about what they like/dislike about an animation</li> </ul> | <ul style="list-style-type: none"> <li>know that animations consist of a number of different images that are played rapidly</li> <li>plan a simple animated scene and a basic storyboard</li> <li>create an animated scene using digital tools</li> <li>understand that 3D effects can add depth to an animation</li> <li>test and debug an animation</li> </ul> | <ul style="list-style-type: none"> <li>understand that animations can be created using different animation techniques (E.g. stop motion and CGI)</li> <li>plan an animated scene for a particular audience</li> <li>create a detailed storyboard of an animated scene</li> <li>produce a detailed animated scene using animation software</li> <li>convey personality or atmosphere through use of character and setting</li> <li>critically analyse an animation and suggest improvements</li> <li>improve own work</li> </ul> |
| <p>iMail</p>   | <ul style="list-style-type: none"> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</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> | <ul style="list-style-type: none"> <li>know that email use the internet</li> <li>send, receive and reply to e-mails</li> <li>understand the need to be careful using email</li> <li>use attachments</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>use email to work on a shared project</li> <li>talk about some of the risks associated with using email</li> <li>communicate safely and respectfully using email</li> </ul>                                                                                                                                               | <ul style="list-style-type: none"> <li>work collaboratively on a shared project using email</li> <li>give and receive feedback via email</li> <li>respond to feedback and improve work</li> <li>identify a range of risks associated with using email (E.g. spoofing, spam, viruses, impersonation)</li> </ul>                                                                                                                                                                                                                  |



| Year 4                                                                                                                                                                               | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <p>iLearn AI</p>   | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals</li> <li>understand that programs execute by following precise and unambiguous instructions</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 collecting, analysing, evaluating and presenting data and information</li> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul> | <ul style="list-style-type: none"> <li>understands that AI involves computers doing tasks</li> <li>identifies less common or incorrect examples of AI</li> <li>understands that computers can learn</li> <li>recalls the term 'machine learning' but cannot explain what it means</li> <li>understands that data is necessary for training models but does not grasp the importance of data quality</li> </ul> | <ul style="list-style-type: none"> <li>knows that AI involves computers or machines performing tasks that usually require human intelligence</li> <li>identifies common examples of AI in everyday life, like smart assistants or game AI</li> <li>recognises that computers learn from input data and can explain the process</li> <li>can talk about machine learning being process by which computers learn from data</li> <li>understands that high-quality, varied data leads to more accurate and reliable machine learning models</li> </ul> | <ul style="list-style-type: none"> <li>can describe AI as not just computers performing tasks, but also as them learning and making decisions based on data</li> <li>can give a range of examples of AI, including both common and less obvious ones, explaining how they use AI</li> <li>can explain that computers learn from examples (data) and improve over time as they are given more data</li> <li>can define machine learning and give examples of how it's used in technologies or applications they've come across</li> <li>knows the importance of the quality and variety of data in training models effectively</li> <li>can talk about the impact of poor-quality or biased data on the performance of AI systems and suggests ways to ensure data quality</li> </ul> |



| Year 4                                                                                                 | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                       | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>iPhotoEdit</b><br> | <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 presenting data and information</li> <li>use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> </ul> | <ul style="list-style-type: none"> <li>Shows basic understanding of what photo editing is and its usefulness</li> <li>Can perform basic operations like cropping and rotating with support</li> <li>Applies colours and filters with help</li> <li>Attempts to use tools like duplicating objects</li> <li>Has a basic understanding of ethical considerations in photo editing</li> <li>Identifies some differences between real and edited images with support</li> <li>Completes simple editing tasks with help</li> </ul> | <ul style="list-style-type: none"> <li>Understands and can explain the purpose of photo editing</li> <li>Independently performs basic operations like cropping and rotating</li> <li>Selects and applies appropriate colours and filters independently</li> <li>Successfully uses tools like duplicating and selection</li> <li>Understands and discusses the ethical implications of photo editing</li> <li>Analyses and explains differences between real and digitally created/altered images</li> <li>Independently completes editing tasks</li> </ul> | <ul style="list-style-type: none"> <li>Demonstrates a thorough understanding of photo editing and can talk about its broader applications</li> <li>Efficiently uses basic operations and can help peers use them</li> <li>Creatively uses colours and filters to enhance images</li> <li>Uses more advanced tools and can combine multiple techniques effectively</li> <li>Provides insightful views on the ethics of photo editing and AI generated images</li> <li>Uses software to add creative elements and demonstrates a higher level of skills</li> </ul> |



| Year 4                                                                                            | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                           | Meeting                                                                                                                                                                                                                                                                                                                                                                                      | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>iSafe</b><br> | <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>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li> </ul> | <ul style="list-style-type: none"> <li>communicate online with support</li> <li>understand that a wider range of information is personal (E.g. regular attendance at a specific place)</li> <li>Identify some of the ways to keep themselves safe online</li> <li>know the need for passwords and that they should be kept safe</li> <li>use keywords to search for information online, sometimes with support</li> </ul> | <ul style="list-style-type: none"> <li>Use technology to communicate and collaborate, identify some of the risks and act to minimise them</li> <li>Use search criteria to find relevant information online</li> <li>demonstrate the use of basic safety measures when using technology and working online</li> <li>Know the need to use secure passwords and to keep them private</li> </ul> | <ul style="list-style-type: none"> <li>use technology and online services to communicate and collaborate, identify some of the risks and act to minimise them</li> <li>know that personal information should only be given to trusted sources</li> <li>know that some information on the internet may be misleading or inaccurate and that it needs to be checked</li> <li>find relevant information online and cross-check information provided on one website against that provided on another</li> </ul> |



| Year 5                                                                                                                                                                                    | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Working Towards                                                                                                                                                                                                                                                                         | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                        | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>iProgram</b><br>     | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems;</li> <li>solve problems by decomposing them into smaller parts</li> <li>use sequence, selection and repetition in programs;</li> <li>work with variables and various forms of input and output;</li> <li>use logical reasoning to explain how some simple algorithms work</li> <li>detect and correct errors in algorithms and programs</li> </ul> | <ul style="list-style-type: none"> <li>Know that computer programs contain commands that achieve a specific action</li> <li>Write or amend computer programs to produce specific actions with assistance</li> </ul>                                                                     | <ul style="list-style-type: none"> <li>Write and amend computer programs</li> <li>Program a number of algorithms that achieve a specific outcome</li> <li>Use repetition, variables and conditional statements in computer programs</li> <li>Test computer programs and correct any errors</li> </ul>                                                                                                                          | <ul style="list-style-type: none"> <li>Write and amend more complex computer programs to create a variety of outcomes</li> <li>Program algorithms that achieve a range of specified outcomes</li> <li>Test, debug and refine computer programs</li> </ul>                                                                                                                                                                                                  |
| <b>iDraw</b><br>                                                                                         | <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</li> </ul>                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>know how to draw an object</li> <li>add and remove objects to create a simple image</li> <li>combine one or more objects to create a simple image</li> <li>manipulate objects (e.g. resizing and rotating); sometimes with assistance</li> </ul> | <ul style="list-style-type: none"> <li>know that images can be created by combining and manipulating objects</li> <li>understand that objects are individual elements</li> <li>modify objects to create an image</li> <li>use the geometric tools to create objects, copy and resize images</li> <li>select and manipulate a graphic object – move it, resize it, change its colour, bring forwards, send backwards</li> </ul> | <ul style="list-style-type: none"> <li>understand the features and tools of digital drawing apps and know which to use for specific tasks</li> <li>combine a range of objects, image groups and layers to create images</li> <li>experiment with a wide range of tools to create images</li> <li>modify objects appropriately using colour, size and rotation</li> <li>discuss the advantages and disadvantages of different features and tools</li> </ul> |
| <b>iCrypto</b><br>  | <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>understand the need for privacy when sending messages</li> </ul>                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>understand that messages can be encrypted using a range of methods</li> </ul>                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>compare and comment upon different forms of encryption methods (e.g. Semaphore, Morse and ciphers)</li> </ul>                                                                                                                                                                                                                                                                                                       |



| Year 5                                                                                                                                                                          | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Working Towards                                                                                                                                                                                                                                                                                                                                      | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p>iWeb</p>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>understand the importance of data security online and that data is encrypted for privacy</li> <li>encrypt and decrypt ciphers using a given key with support</li> <li>understand that coded messages can be cracked</li> </ul>                                                                                | <ul style="list-style-type: none"> <li>know that privacy online is maintained using encryption and decryption</li> <li>suggest a range of scenarios where it is important to secure data using encryption methods</li> <li>use simple encryption methods to encode and decode messages with a key</li> <li>know that codes can be broken by identifying patterns in letters and words</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>use a range of encryption methods to encode and decode messages</li> <li>identify patterns and use frequency analysis to determine a cipher key and decrypt messages</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> <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 presenting data and information</li> </ul> | <ul style="list-style-type: none"> <li>Know that internet search engines search for websites</li> <li>Know that keywords should be precise and specific to obtain the most relevant results</li> <li>Understand that web pages are linked together and are part of the world wide web</li> <li>Understand that web content can be changed</li> </ul> | <ul style="list-style-type: none"> <li>Can discuss opportunities for communication and collaboration online</li> <li>Use search technology to find things out</li> <li>Know that the World Wide Web consists of many websites and that web pages can be accessed using the internet.</li> <li>Know that web pages are formatted using a type of 'code'</li> <li>Know that you can change what is displayed on a web page</li> <li>Understand that you can change how content on a web page looks</li> </ul> | <ul style="list-style-type: none"> <li>Can communicate and collaborate online</li> <li>Understand that the World Wide Web is one of a number of services provided on the internet</li> <li>Use search technology and clear search terms to view web pages and obtain information and data</li> <li>Know that HTML tells the computer what to put where on a web page</li> <li>Understand that HTML tags tell a computer what content to display between them (e.g. an image, text or hyperlink)</li> </ul> |



| Year 5                                                                                             | National Curriculum Links                                                                                                                                                                                                                                                                                                              | Working Towards                                                                                                                                                                                                                                  | Meeting                                                                                                                                                                                                                                                                                                                                      | Greater Depth                                                                                                                                                                                                                                                                                                                          |
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| <b>iModel</b><br> |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Understand that CSS tells the computer how content inside HTML tags should be styled</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 presenting data and information</li> </ul> | <ul style="list-style-type: none"> <li>Design a simple model on paper</li> <li>Create simple 3D models using Tinkercad</li> <li>Use a limited set of 3D modelling tools with support</li> <li>Talk about what they like about a model</li> </ul> | <ul style="list-style-type: none"> <li>Design a 3D model identifying shapes making it up</li> <li>Create compound, connected 3D models using Tinkercad</li> <li>3D model is fairly accurately grouped and sized</li> <li>Explore simple features of graphical modelling software</li> <li>Evaluate own work and make improvements</li> </ul> | <ul style="list-style-type: none"> <li>Create accurate, fit-for-purpose, complex 3D models using Tinkercad</li> <li>3D model is accurately scaled, in proportion and true to life</li> <li>Use a range of 3D modelling features and tools</li> <li>Critically analyse own work and the work of others and make improvements</li> </ul> |



| Year 5                                                                                            | National Curriculum Links                                                                                                                                                                                                                                                                                                                                               | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                                                        | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>isafe</b><br> | <ul style="list-style-type: none"> <li>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li> </ul> | <ul style="list-style-type: none"> <li>Know that some information is personal and should be kept private online</li> <li>Know that there are some risks associated with communicating online</li> <li>Know some of the differences between chatting online and face to face</li> <li>Understand that not all online content is reliable or can be trusted</li> <li>Know that people can bully and be bullied online as well as in real life</li> </ul> | <ul style="list-style-type: none"> <li>Identify risks and benefits of forms of communication</li> <li>Understand the concept of personal and private information</li> <li>Understand and relay the SMART rules</li> <li>Understand the difference between communicating online and face-to-face, and some of the dangers associated in communicating online</li> <li>Consider whether they trust the content of websites</li> <li>Make judgments about the validity and suitability of websites</li> <li>Identify a number of rules that apply to online chatting</li> <li>Understand the definition of bullying and cyber bullying, exploring the differences and similarities</li> <li>Identify some types of cyber bullying</li> <li>Understand that the school rules about bullying also apply to online activity</li> </ul> | <ul style="list-style-type: none"> <li>Know that a range of information is personal and should be protected</li> <li>Know a variety of online risks</li> <li>Identify a range ways they can keep themselves safe using technology and online services and know how to report any concerns</li> <li>Know that some information on the internet may be misleading or inaccurate and that it needs to be checked</li> <li>find relevant information online and critically evaluate its plausibility and usefulness</li> <li>Identify a range of kinds of cyber bullying and know what to do if it were happening to them or someone they know</li> <li>Understand the bystanders role in contributing to, or preventing, cyber bullying.</li> <li>Understand the schools' sanctions and rules about bullying, including cyber bullying (anti bullying policy)</li> </ul> |



| Year 6                                                                                                                                                                                 | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>iProgram</b><br>  | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems;</li> <li>solve problems by decomposing them into smaller parts</li> <li>use sequence, selection and repetition in programs;</li> <li>work with variables and various forms of input and output;</li> <li>use logical reasoning to explain how some simple algorithms work</li> <li>detect and correct errors in algorithms and programs</li> </ul> | <ul style="list-style-type: none"> <li>Write or amend computer programs to produce specific actions with assistance</li> <li>Know that commands can be given in shorter form</li> <li>Use iteration (repeats and loops) with assistance</li> </ul>                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>Write and amend more complex computer programs to create a variety of outcomes</li> <li>Use iteration(repeats and loops), variables and conditional statements (if..then) in computer programs</li> <li>Test computer programs and correct most errors</li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Create procedures that call on other procedures using broadcasting blocks and produce a result</li> <li>Create and use efficient methods of iteration, and nested conditional statements (if..then..if etc.)</li> <li>Systematically test computer programs for bugs and make them work as expected</li> <li>Critically analyse code and suggest more elegant solutions</li> </ul>                                                                                                |
| <b>iNetwork</b><br>  | <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>Know a computer network is a group of computers that are connected</li> <li>Talk about how people can work together online</li> <li>Understand that computers can be connected together</li> <li>Understand that the internet is a network</li> <li>Use a search engine to find information</li> <li>Know that websites have an address and are located on web servers</li> <li>Can find a website using its URL</li> </ul> | <ul style="list-style-type: none"> <li>Can discuss opportunities for communication and collaboration online</li> <li>Understand that a computer network consists of a number of computers and devices that are connected</li> <li>Know that the internet is an example of a computer network</li> <li>Use search technology to find things out and check for reliability</li> <li>Know that internet search engines list search results in order of popularity</li> </ul> | <ul style="list-style-type: none"> <li>Can communicate and collaborate online</li> <li>Know that the internet is an example of a Wide Area Network</li> <li>Understand that the World Wide Web is one of a number of services provided by the internet</li> <li>Understand that special devices and services are required to connect to the internet</li> <li>Use search technology and clear search terms to view web pages and obtain data</li> <li>Can trace the route and path of a URL using trace tools</li> </ul> |



| Year 6                                                                                            | National Curriculum Links                                                                                                                                                                                                                                                                                  | Working Towards                                                                                                                                                                                                                                  | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Greater Depth                                                                                                                                                                                                                                                       |
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| <b>iData</b><br> |                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>know that internet search engines order the results they return</li> </ul>                                                                                                                                | <ul style="list-style-type: none"> <li>Know that data is sent and received across a network as packets</li> <li>Can talk about the number of routers (hops) a request to visit a website passes through before reaching its location</li> </ul>                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Can explain how internet search results are ranked</li> <li>I can set out content on a web page using basic HTML</li> </ul>                                                                                                  |
|                                                                                                   | <ul style="list-style-type: none"> <li>Select, use and combine a variety of software on a range of digital devices to design &amp; create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> </ul> | <ul style="list-style-type: none"> <li>know the computer can be used to help answer specific question</li> <li>enter text and numbers in a spreadsheet</li> <li>change some of the data and discuss effect on results with assistance</li> </ul> | <ul style="list-style-type: none"> <li>enter text and numbers in a spreadsheet</li> <li>enter a formula to perform a calculation</li> <li>use SUM function</li> <li>change some of the data and discuss effect on results</li> <li>create a graph from the data entered and explain results</li> <li>know that spreadsheets can be used for mathematical calculations and that recalculations with different values can be done quickly</li> <li>discuss the advantages and disadvantages of using spreadsheets for calculations against the use of manual methods</li> </ul> | <ul style="list-style-type: none"> <li>select relevant data for graph</li> <li>select appropriate graph for the data</li> <li>explore further functions</li> <li>know how a spreadsheet is used and discover more about how they are used outside school</li> </ul> |



| Year 6                                                                                                                                                                               | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Working Towards                                                                                                                                                                                                                                 | Meeting                                                                                                                                                                                                                                                                                                                                                          | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>iApp</b><br>    | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <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>Write or amend computer programs to produce specific actions with assistance</li> <li>Use event handlers (conditional statements)</li> </ul>                                                             | <ul style="list-style-type: none"> <li>Write and amend more complex computer programs to create a variety of outcomes</li> <li>Use iteration (repeats and loops), variables and conditional statements (e.g. if..then) in computer programs</li> <li>Test computer programs and correct most errors</li> </ul>                                                   | <ul style="list-style-type: none"> <li>Use variables and functions</li> <li>Systematically test computer programs for bugs and make them work as expected</li> <li>Critically analyse code and suggest more elegant solutions</li> </ul>                                                                                                                                                                        |
| <b>iModel</b><br>  | <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 presenting data and information</li> </ul>                                                                                                                                                       | <ul style="list-style-type: none"> <li>Design a simple model on paper</li> <li>Create simple 3D models using SketchUp</li> <li>Use a limited set of 3D modelling tools with support</li> <li>Talk about what they like about a model</li> </ul> | <ul style="list-style-type: none"> <li>Design a 3D model</li> <li>Create compound, connected 3D models using SketchUp</li> <li>3D model is fairly accurately grouped and scaled</li> <li>Explore simple features of graphical modelling software</li> <li>Apply materials to surfaces using SketchUp</li> <li>Evaluate own work and make improvements</li> </ul> | <ul style="list-style-type: none"> <li>Create accurate, fit-for-purpose, complex 3D models using SketchUp</li> <li>3D model is accurately scaled, in proportion and true to life</li> <li>Use a range of 3D modelling features and tools</li> <li>Import materials and images and apply to surfaces using SketchUp</li> <li>Critically analyse own work and the work of others and make improvements</li> </ul> |



| Year 6                                                                                                | National Curriculum Links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                     | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>iLearnAI</b><br>  | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <li>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</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 collecting, analysing, evaluating and presenting data and information</li> </ul> | <ul style="list-style-type: none"> <li>know that data is used to train computers</li> <li>know that AI can respond to a range of input, including movement</li> <li>organise data into categories with support</li> <li>create input data for machine learning models, sometimes with support</li> <li>train machine learning models to recognise and respond to text, movement and emotion with support</li> </ul> | <ul style="list-style-type: none"> <li>know that computers can be taught to learn</li> <li>know that machine learning is a method used to train AI models</li> <li>know that the output from an AI model is a prediction based on its training</li> <li>know that human bias can influence machine learning outcomes</li> <li>classify data</li> <li>create input data for machine learning models</li> <li>train AI systems to recognise and respond to text, movement and emotion</li> </ul> | <ul style="list-style-type: none"> <li>know that computers are taught to learn by people using a process called machine learning</li> <li>talk about how the quality and type of training data affect the accuracy and reliability of machine learning systems</li> <li>discuss the role of AI in society, including ethical considerations</li> <li>classify a range of data into distinct categories</li> <li>identify potential bias in data</li> <li>train a variety of AI systems using a wide range of quality, unbiased, input data (incl. text, images and motion)</li> </ul> |
| <b>iMicrobit</b><br> | <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <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>follow step-by-step instructions but struggles with independent coding tasks</li> <li>use sequence, selection, and repetition in programming with support</li> <li>transfer a program to the micro:bit</li> <li>debug or adapt code with support</li> </ul>                                                                                                                  | <ul style="list-style-type: none"> <li>write and debug programs</li> <li>use sequence, selection, and repetition</li> <li>use variables and inputs to create programs that control micro:bit's</li> <li>transfer and test programs on the micro:bit</li> <li>use logical reasoning to explain how algorithms work</li> <li>can detect and correct errors in code</li> </ul>                                                                                                                    | <ul style="list-style-type: none"> <li>design, write, and debug more complex programs</li> <li>use all key constructs: sequence, selection, repetition, and variables</li> <li>modify and adapt existing code to create original programs,</li> <li>debug programs efficiently</li> <li>use the MakeCode environment, experimenting with advanced features and functions</li> </ul>                                                                                                                                                                                                   |



| Year 6                                                                                            | National Curriculum Links                                                                                                                                                                                                                                                                                                              | Working Towards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Greater Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>iSafe</b><br> | <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 presenting data and information</li> </ul> | <ul style="list-style-type: none"> <li>apply logical reasoning to predict the outcome of programs or solve problems with support</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                   | <ul style="list-style-type: none"> <li>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>Know that some information is personal and should be kept private online</li> <li>Understand the need for strong passwords</li> <li>Know that there are some risks associated with communicating online</li> <li>Understand that not all online content is reliable or can be trusted</li> <li>Know that people can bully and be bullied online as well as in real life</li> <li>Are aware there are some tools available for reporting online abuse</li> <li>Can talk about some situations where a trusted adult should be consulted</li> </ul> | <ul style="list-style-type: none"> <li>Identify risks and benefits of forms of communication</li> <li>Understand the concept of personal and private information</li> <li>Understand that privacy matters and how it relates to online security</li> <li>Understand what types of situations call for getting help or talking things out with a trusted adult</li> <li>Can talk about when and why to report online abuse</li> <li>Understand the definition of bullying and cyber bullying, exploring the differences and similarities</li> <li>Identify some types of cyber bullying</li> <li>Know what positive behavior looks like online and offline</li> </ul> | <ul style="list-style-type: none"> <li>Know that a range of information is personal and should be protected</li> <li>Understand what types of situations call for getting help, blocking and/or reporting or talking things out with a trusted adult</li> <li>Identify a range of kinds of cyber bullying and know what to do if it were happening to them or someone they know</li> <li>Understand the upstanders role in supporting targets of cyberbullying and their potential to help prevent cyber bullying</li> <li>Know some tools and settings that protect against hackers and other threats</li> </ul> |

