

▶▶ Year 1	▶▶ National Curriculum Links	▶▶ Progression of skills linked with topic.
PE Changing Algorithm (iAlgorithm)  	▶▶ understand what algorithms are; how they are implemented as programs on digital devices ▶▶ understand that programs execute by following precise and unambiguous instructions ▶▶ use logical reasoning to predict the behaviour of simple programs ▶▶ create and debug simple programs	▶▶ To discuss something, I do every day that needs to be done in order I can ▶▶ To follow instructions ▶▶ To make a set of instructions for others to follow ▶▶ To change instructions if they are wrong ▶▶ To follow instructions to do something depending if something is true or false ▶▶ To read instructions and tell you what I think will happen ▶▶ To tell you what an algorithm is
Beebots (iProgram) 	▶▶ understand that programs execute by following precise and unambiguous instructions ▶▶ use logical reasoning to predict the behaviour of simple programs ▶▶ create and debug simple programs ▶▶ use technology purposefully to create, organise, store, manipulate and retrieve digital content	▶▶ To show you something that does something when you give it an instruction ▶▶ To be able to make a programmable toy go where I want it to go ▶▶ To draw instructions that would move a toy ▶▶ To tell you what I think a toy will do if it followed a set of instructions
Writing a letter to my new teacher. (iWrite)  	▶▶ To use technology purposefully to create, organise, store, manipulate and retrieve digital content	▶▶ To write a simple sentence using a keyboard ▶▶ To print my work ▶▶ To be able to save my work ▶▶ To tell you about when it would be useful to use a word processor

Year 1 – Computing Progression of Skills

Year 1	National Curriculum Links	Progression of skills linked with topic.
iSafe 	- 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 - recognise common uses of information technology beyond school	- To tell you about the information that only belongs to me - To talk about who I can and should not share personal information with - To talk about people I can and can't trust - To identify someone I can trust (E.g. police officer or teacher) - To tell you about a risky situation when I might need the help of a trusted adult - To talk about how emotions and sensations can make me feel safe or unsafe - To talk about which information is personal to me and whom they should/should not give it to
General 	Information Technology	- To be able to type simple sentences with a keyboard - To be able to turn a computer on and off - To log on with a username and password - To use the keyboard - To open applications with help - To save and print my work - To use a mouse to point, click and drag objects around a screen - To use the mouse to select icons and items - To be able to print my work - To be able to save my work with help - To be able to tell you why I used a computer to do something
Year 1	National Curriculum Links	Progression of skills linked with topic.
	Digital Literacy	- To be able to move around a website using buttons and picture links - To be able to find answers to questions using a website

Year 2	National Curriculum Links	Progression of skills linked with topic.
Instructions (Linked with English Topic) (iProgram) 	▶▶ understand what algorithms are; how they are implemented as programs on digital devices ▶▶ understand that programs execute by following precise and unambiguous instructions ▶▶ use logical reasoning to predict the behaviour of simple programs ▶▶ create and debug simple programs	▶▶ To sequence a set of instructions for making a sandwich ▶▶ To create a sequence of instructions ▶▶ To be able to use repeat instructions ▶▶ To be able to predict what is going to happen based on the instruction. ▶▶ To be able to edit instructions if they do not work. ▶▶ ▶▶
Great Fire of London Powerpoint (iPub) 	▶▶ 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 ▶▶ To use technology purposefully to create, organise, store, manipulate and retrieve digital content ▶▶ recognise common uses of information technology beyond school	▶▶ To create a presentation ▶▶ To use animation on PowerPoint ▶▶ To create an information source ▶▶ To use the internet to find additional information ▶▶ To be able to save and reopen my work. ▶▶ To be able to add a title to my work. ▶▶ ▶▶

Year 2	National Curriculum Links	Progression of skills linked with topic.
Research Challenge (iSearch)  	» use technology purposefully to create, store, organize, manipulate and retrieve digital content » 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	» To find and move around a website » To use the information on a website to answer a question » To order things using information found online » To collect information from a part of a website and present my findings
Year 2 iSafe  	» 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	» To explain why I shouldn't open websites or an attachment without permission » To talk about why I should not talk to strangers online » To talk about some ways I can stay safe when using technology » To know that some websites are aimed at me and some are better for what I'm looking for » To understand the need to treat others as I would like to be treated online » I know that some people are not nice online and can bully » To talk about when I would need to tell a trusted adult about something online » To be able to search for things online
General 	Information Technology	» To move around things using touch, arrow keys or a mouse » To be able to type with both hands » To be able to use the backspace button and the delete button to remove text » To be able to add titles and captions to my work » To be able to find, change and save my work » To be able to print my work



Digital Literacy

- ▶▶ To be able to find things out on the world wide web
- ▶▶ To be able to pick a website for something in particular with help
- ▶▶ To be able to find things online with help
- ▶▶ To be able to show you how I found information online
- ▶▶ To be careful about the information I get from websites
- ▶▶ To use useful apps to help me with a task
- ▶▶ To be able to move around a website using links and buttons
- ▶▶ To be able to type addresses into a web browser
- ▶▶ To be able to change colours, size and style of text in my work
- ▶▶ To know that I might need permission to use things I have found online
- ▶▶ To be able to find websites with help
- ▶▶ To be able to tell you why I prefer one website to another

Year 3	National Curriculum Links	iCan - Computing
iProgram  	- understand that programs execute by following precise and unambiguous instructions - use logical reasoning to predict the behaviour of simple programs - create and debug simple programs - use technology purposefully to create, organise, store, manipulate and retrieve digital content	- To be able to make a sprite move using programming blocks and loops I can move a sprite on stage programming using coordinates - To be able to create an animation where a sprite changes costume - To be able to make an animation with sound effects that are repeated - To be able to amend a program to draw shapes using repeats and the pen tool
iConnect   	- 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 - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact - 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,	- To be able to name some of the activities you can do online - To be able to visit and move around websites to answer questions - To be able to use search terms and a search engine to answer questions - To understand the risks associated with visiting non-credible websites - To be able to decide whether a website is reliable
	systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	

iNetwork  iSafe 	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 be discerning in evaluating digital content use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact	- To be able to explain that a network is things that are connected - To be able to identify key parts of a network - To be able to talk about how information can be passed between devices - To be able to describe how networks connect to the internet using routers - To be able to talk about how networks connect to each other - To know some of the ways people can be influenced online. - To be able to understand that some online content may be advertising - To be able to identify some of the risks of communicating and collaborating online and act to minimise them - To know ways technology can be used positively and what is appropriate to share online - To be able to demonstrate the use of basic safety measures when using technology and working online. - To know the need to use secure passwords and to keep them private.
General 	Digital Literacy	- To be able to search online with help - To be able to change what I'm searching for to get better results - To be able to present information and my ideas using different tools - To be able to enter a URL for a website - To be able to point out some links on web pages and use them - To be able to talk about how useful websites and apps have been to my work - To be able to talk about my work and explain why I used particular tools



Information Technology

- To be able to combine images with text
- To be able to use appropriate effects and re-size graphics
- To be able to copy text from an internet page to a document
- To be able to copy images from a web page
- To be able to save, print and retrieve work
- To be able to use software, computers and devices to make simple presentations and create things
- To be able to save my work on the network and online
- To be able to scroll or swipe
- To be able to collect data and talk about its accuracy
- To be able to organise and present data using different tools

Year 4	National Curriculum Links	iCan - Computing
iProgram 	- design, write and debug programs that accomplish specific goals - use sequence and repetition in programs - use logical reasoning to explain how a simple algorithm works and detect and correct errors in algorithms and programs - Solve problems by decomposing them into smaller parts - create and debug simple programs - understand that programs execute by following precise and unambiguous instructions - use technology purposefully to create, organise, store, manipulate and retrieve digital content	- To be able to draw simple shapes using programming blocks containing direction and loops - To be able to create and test a sequence of statements that make letters of the alphabet - To be able to create programs that change the size of a shape - To be able to program a robot to draw letters of the alphabet - To be able to use if .. then .. else statements in my programs - To be able to plan a number of commands in order to solve a puzzle - To be able to plan algorithms and test programs systematically - To be able to program functions and call them more than once
iData 	- 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 (KS3 edited) understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition...]	- To be able to count in Binary from 1 to 26 (5 bit) - To be able to assign a letter of the alphabet to a binary code - To be able to answer questions using information contained on records - To be able to sort information on records - To be able to use computers to add a record to a database - To be able to answer simple questions using information stored in records - To be able to use a database to create charts representing answers to questions - To be able to search and sort a database to answer a question

Year 4	National Curriculum Links	iCan - Computing
iAnimate  	 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	 To be able to create a flipping book animation  To be able to draw a series of images on frames with each showing a figure in a different pose  To be able to animate a sequence of digital images  To be able to design and add backgrounds to an animated scene  To be able to plan and make an animation
iSafe  	 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	 To be able to talk what digital media I use  To be able to know the five-step method for conducting an online search  To be able to use search criteria  To be able to identify some of the ways online content can be evaluated for reliability  To be able to give examples about appropriate/inappropriate content for online sharing I can explain the consequences of sharing without consent  To be able to identify appropriate people to turn to for help  To be able to talk about copyright  To be able to talk about strategies for recognising and responding to risky online interaction  To be able to rate the riskiness of online scenarios  To be able to know some solutions for dealing with cyberbullying  To be able to identify ways information can be found online about people  To be able to determine the accuracy of information and know the difference between assumption, opinion, and fact

		- To be able to know that personal information you share online becomes part of your reputation, which can last a long time - To be able to know to speak to a trusted adult if I think my identity has been stolen - To be careful about how and whom I share my personal information with - To know that personal information you share online becomes part of your reputation, which can last a long time - To know to speak to a trusted adult if I think my identity has been stolen - To be careful about how and whom I share my personal information with - To know that some people online may not be who they say they are
Year 4	National Curriculum Links	iCan - Computing
General 	Information Technology	- To be able to use a keyboard with increasing confidence - To be able to vary fonts, colours and effects - To be able to cut, copy and paste - To be able to import text, audio and graphics from devices, networks and online - To be able to change images: crop, resize and edit them - To be able to insert and edit hyperlinks - To be able to create things for a particular audience - To be able to evaluate my own and other's work and suggest improvements - To be able to create diagrams and graphs to answer questions - To be able to talk about what data I need to collect to answer a question - To be able to use and compare graphs and charts - To be able to organise, present and interpret data
	Digital Literacy	- To be able to open, create, send and forward email - To be able to attach files to digital communications – like email and blogs - To be able to open and save attachments - To be able to use a range of digital tools to communicate (E.g. blogs, chatting, commenting) with purpose - To be able to use search engines to find things online - To be able to use effective search terms to find specific information - To be able to check the accuracy and reliability of information - To know the difference between opinion, assumption and fact



Year 5	National Curriculum Links	Can - Computing
iModel 	▶▶ 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	▶▶ To be able to use graphical modelling software to create 3D shapes ▶▶ To be able to group 3D objects to create a model ▶▶ To be able to zoom in and out to add detail ▶▶ To be able to explore possibilities using graphical models
iProgram  	▶▶ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts ▶▶ use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▶▶ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	▶▶ To be able to use conditional if .. then ... else statements ▶▶ To be able to use x-y coordinates to program movement ▶▶ To know that boolean statements can only be true or false ▶▶ To know that variables are stored and be used to keep track of values (E.g. scores) ▶▶ To be able to use variables in programs ▶▶ To use sequence, selection, conditions and repetition in my programs ▶▶ To be able to design a algorithms before I program them ▶▶ To be able to test my programs in a systematic way to help me find bugs ▶▶ To be able to debug my programs ▶▶ To be able to evaluate my work and make improvements

Year 5	National Curriculum Links	Can - Computing
iWeb 	▶▶ use technology purposefully to create, organise, store, manipulate and retrieve digital content ▶▶ 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 ▶▶ 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	▶▶To be able to act out the Internet ▶▶To be able to talk about ways different services on the internet can be used to work with others ▶▶To be able to tell you the difference between the Internet and the World Wide Web ▶▶To be able to talk about how HTML code tells the computer what to put in a space on a web page ▶▶To be able to edit HTML code to change the text appearing on a web page ▶▶To recognise basic HTML and can identify what some item are (e.g. an image) ▶▶To be able to change an image on a website ▶▶To be able to read basic HTML and predict what a website would look like ▶▶To be able to use HTML code to create web content ▶▶To be able to remix a web page to make my own which has images and text
iSafe  	▶▶ 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	▶▶To be able to talk about the risks and benefits of using various forms of communication ▶▶To be able to know what makes information personal and private ▶▶To be able to follow safety rules and behave responsibly when using technology ▶▶To be able to talk about personal safety in real life and online ▶▶To be able to know the SMART rules for communicating online ▶▶To be able to check the validity of online content ▶▶To be able to be sensible about which information I can trust ▶▶To be able to compare different sources of information I can communicate online safety and sensibly ▶▶To be able to know that people can be bullied online and this is called cyberbullying ▶▶To be able to talk about the different ways people can be bullied online ▶▶To be able to know what to do if I come across cyberbullying ▶▶To be able to cross-check information provided on one website against that provided on another ▶▶To be able to create digital content for specific purposes ▶▶To be able to use basic safety measures when using technology and working online ▶▶To be able to use appropriate search criteria to find information and check if it

General



Information Technology



Digital Literacy

- is reliable and useful
 - » To be able to know that personal information should only be given to trusted sources
 - » To be able to know that some information on the internet may be misleading or inaccurate and that it needs to be checked
 - » To be able to use technology and online services to communicate and collaborate
 - » To be able to identify some of the risks involved in communicating online and take steps to avoid them
-
- » To be able to understand that information in the form of text, sound and pictures can be combined to create digital content and communicate with an audience
 - » To be able to design and create digital content for a particular purpose and audience
 - » To be able to create digital content that uses both text and images
 - » To be able to choose and use the appropriate advanced features of word processing or presentation software
 - » To be able to know that a computer network consists of a number of computers and devices that are connected
 - » To be able to suggest a range of activities you can do using the internet, including web browsing
 - » To be able to find information by navigating around a number of websites using hyperlinks and button

Year 6	National Curriculum Links	iCan - Computing
iProgram  	» design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts » use sequence, selection, and repetition in programs; work with variables and various forms of input and output » use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs » use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content » 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	» To be able to identify a range of input devices used in playing computer games » To be able to write and change computer programs to make them do a number of things » To be able to use loops, variables and conditional statements (if..then) in computer programs » To be able to design a program and detail the objects, interactions and rules for a game » To be able to use variables and program the rules necessary to progress in a game » To be able to program a game that has more than one level » To be able to identify mistakes in my own and other's computer programs » To be able to systematically test my programs to find bugs and correct them

Year 6	National Curriculum Links	iCan - Computing
iData 	▶▶ Select, use and combine a variety of software on a range of digital devices to design & create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	▶▶ To be able to use a spreadsheet to solve problems ▶▶ To be able to use the correct formula to carryout calculations ▶▶ To be able to create, edit and copy graphs using a spreadsheet ▶▶ To be able to use the SUM function in formulae to add numerical data ▶▶ To be able to use the data in a spreadsheet to answer questions and make choices
iNetwork 	▶▶ 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 ▶▶ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	▶▶ To be able to talk about the benefits of being connected ▶▶ To know a computer network is a group of computers that are connected ▶▶ To be able to talk about how the Internet is many networks connected and is a Wide Area Network (WAN) ▶▶ To know that a router sends and receives data as packets ▶▶ To know that websites have an address and are located on web servers around the world ▶▶ To be able to tell you the difference between the World Wide Web and the Internet ▶▶ To be able to find the location of a website using a computer ▶▶ To be able to talk about the number of routers (hops) a request to visit a website passes through before reaching its location ▶▶ To be able to describe how search engines 'crawl' links on websites to find out which web pages are available on the world wide web ▶▶ To know that search results are organised in order of popularity and this is called being 'ranked' ▶▶ To be able to explain how search results are ranked by search engines ▶▶ To be able to use effective search terms to find things online ▶▶ To be able to set out content on a web page using basic HTML ▶▶ To be able to style content on a web page using basic CSS

Year 6	National Curriculum Links	iCan - Computing
iSafe  	» use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	» To be able to talk about the risks and benefits of communicating online » To be able to understand what is personal and private information and when/where to share it » To be able to give you examples of situations that would call for getting help » To be able to identify one or more people I can trust (E.g. police officer or teacher) » To be able to talk about the importance of never sharing passwords, except with parents or guardians » To be able to talk about the importance of screen locks that protect devices » To know how to create passwords that are hard to guess, yet easy to remember » To be able to make decisions about information sharing on the sites and services I use » To be able to identify situations of harassment or bullying online » To be able to talk about specific ways to respond to bullying when I see it » To be able to explain how to behave if I experience harassment » To know how to respond to negativity online » To be able to identify situations when it's better to communicate face-to-face rather than to message » To be able to recognise that looking for help for myself or other people is a sign of strength » To know that there are tools available to report online abuse » To be able to talk about when and why it would be appropriate to use online reporting

	Information Technology » Select, use and combine a variety of software on a range of digital devices to design & create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	» To be able to use a keyboard quickly and accurately » To be able to create interactive presentations that combine text, images, sound and video I can use hyperlinks in my presentations » To be able to format and edit my work to make it better » To be able to create, improve and understand graphs and charts » To be able to design questions and perform searches using more than one criteria on databases/spreadsheets » To be able to check the reliability of data » To be able to investigate the effects of changing variables » To be able to make and test predictions using digital tools » To be able to use a spreadsheet to solve problems » To be able to use the correct formula to carryout calculations » To be able to create, edit and copy graphs using a spreadsheet » To be able to use the SUM function in formulae to add numerical data To be able to use the data in a spreadsheet to answer questions and make choices
--	--	---

Year 6	National Curriculum Links	iCan - Computing
	Digital Literacy	» To be able to present data to a given audience and display findings using a range of digital tools » To be able to communicate and collaborate online at schools and outside of it (E.g. messaging, gaming) » To be able to share my work with a wide audience (E.g. blogging, publishing web pages) » To be able to understand when and where I can use the Internet to find things out » To be able to explain what copyright is and how it applies to things I would like to use » To know that I need permission to use other people's work in mine » To be able to tell you how to check whether information online is reliable or useful To be able to explain how online research involves putting information together, understanding it and working out whether it is useful or good

