HOLLINS GRUNDY PRIMARY SCHOOL

Happiness, Health and Respect for Confident, Creative Learners

Assessment Criteria In Computing

		MONTH BANDS	EARLY LEARNING GOAL
RECEPTION	**30-50**	• Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. • Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. • Knows that information can be retrieved from computers •	• Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. **Exceeding**
	40-60	• Completes a simple program on a computer. • Interacts with age-appropriate computer software.	• Children find out about and use a range of everyday technology. They select appropriate applications that support an identified need, for example in deciding how best to make a record of a special event in their lives, such as a journey on a steam train.

Year 1

Unit	NC links	Information Technology	Computer Science	Digital Literacy (including safety)
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.*			• Know that some information is personal (e.g.name and address) • Can identify some characteristics of trustworthy/untrustworthy people • Understands that personal information should only be given to trusted people .
iAlgorithm	*Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.* *Use logical reasoning to predict the behaviour of simple programs.* *Create and debug simple programs.*		• Give simple instructions to make things happen and understand that this is called an algorithm. • Read a set of instructions and predict the outcome. • Begin to debug a sequence of instructions when things do not go as planned	
iWrite	*Use technology purposefully to create, organise, store, manipulate and retrieve digital content.*	• Type words using a keyboard • Use a word bank to create meaningful sentences. • Open, print and save documents		

iProgram **&** **ipad** **Algorithms** **and** **programming**	*Understand what algorithms are; how they are implemented as programs on digital devices;* *That programs execute by following precise and unambiguous instructions.* *Recognise common uses of information technology beyond school* *Create and debug simple programs* *Use logical reasoning to predict the behaviour of simple programs* *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.*		• Read a set of instructions and usually predict the correct outcome. • Produce a set of instructions that others can follow. • Produce an accurate set of instructions using agreed language that others can follow. • Understand that ipads and other devices use touch as an **input.**. • Recognise repetition in algorithms. • Give instructions using directional language to a virtual programmable toy.	
Ongoing		• Know what a file is • Know what a computer is. • Can list jobs done by a computer inside school		• Recognise something online as good or helpful.

Step	B	w	s	s+
No. of statements required	<6	6-12	12-18	18+

Year 2

Unit	NC links	Information Technology	Computer Science	Digital Literacy (including safety)
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.*			• Understands that a wider range of information is personal (e.g. regular attendance at a specific place) • Can identify a variety characteristics of trustworthy/untrustworthy people and justifies opinions appropriately. • Knows that personal information should only be given to trusted people .
iProgram	*Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions* *Use logical reasoning to predict the behaviour of simple programs* *Create and debug simple programs.*		• Execute short a sequence of commands that results in an effect • Produce a command that achieves a simple effect (eg. movement) • Move a sprite in one direction on screen using steps • Program a sequence of commands that results in a number of planned effects • Test and correct simple programs • Evaluate their own work and comment on improvements	
iSearch	*Use technology purposefully to create, organise, store, 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.*			• Use a link to access a website. • Navigate a website using hyperlinks. • Select information in a website. • Find answers to questions using a website. • Make decisions about how useful a website is for a purpose. • Demonstrate how they found specific information in a website.

ipad **Algorithms** **and simple** **programming**	*Understand what algorithms are; how they are implemented as programs on digital devices.* *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*			• Can name a number of devices that use touch as an input eg whiteboard screens , smart phones • Read a set of commands and predict the correct outcome. • Enter and execute a short sequence of commands that result in an effect. • Recognise where repetition would be useful in simple programs and use commands that are repeated. • Understand that commands can be **nested** and sometimes use them.	
iPub **iBlog**	*Recognise common uses of information technology beyond school.* *Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns* *Use technology purposefully to create, organise, store, manipulate and retrieve digital content*				• Combine text information and audio to provide information on a topic. • Experiment with visual effects such as text and image styles • Publish ebooks • Write simple blog posts on a topic and respond appropraitely
Ongoing		• Save and edit my work on a computer.			• Tell people what they can do if they see anything bad online.

Step	B	w	s	s+
No. of statements required	<8	8-16	16-24	24+

Year 3

Unit	NC links	Information Technology	Computer Science	Digital Literacy (including safety)
iSafe	*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.*			• Can identify personal information. • Know that personal information should only be given to trusted people. • Understand the need to be safe when using ICT . • Identify some ways they can stay safe when online.
iProgram **&** **iPad Year 3 Algorithms & Programming**	*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.*		• Know that a program is a sequence of statements written in a programming language. • Know that scratch can be given commands to produce specific effects on screen. • Move a sprite (or similar) around a screen using turns and repetition. • Design and produce basic programs. • Combine sequences of commands into procedures that are repeated. • Combine a sequence of commands that re repeated and involve making multiple choices (conditions) • Test and correct simple animations. • Predict the outcome of a simple algorithm. • Understand that computer programs containing graphics use x y coordinates and turns are measured in degrees. • Evaluate work and comment on improvements.	
iAlgorithm	*Solve problems by decomposing them into smaller parts.* *Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.*	• Understand that computers work by following a set of instructions- called a program.	• Understand that information is easier to find in a sorted order. • Understands that splitting problems up and solving parts can speed up finding a solution.	

			• Understands that algorithms are a set of instructions that complete a task.	
iSimulate	*Recognise common uses of information technology beyond school* *Select, use and combine a variety of software* *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.*	• Recognise patterns within simulations • Use simulations to make and test predictions		
Ongoing				

Step	B	w	s	s+
No. of statements required	<6	6-12	12-18	18+

Year 4

	NC links	Information Technology	Computer Science	Digital Literacy (including safety)
iSafe	*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.*			• Know that some information on the Internet may be misleading or inaccurate and needs to be checked. • Use ICT to communicate, identify some of the risks and act to minimise them. • Use appropriate search criteria to find relevant information . • Check the plausibility and usefulness of information.
iProgram & iPad Year 4 Algorithms & Programming	*Design, write and debug programs that accomplish specific goals.* *Use sequence, selection, and repetition in programs.* *Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.* *Solve problems by decomposing them into smaller parts.*		• Know that a screen turtle or sprite can be programmed to produce a specific shape on screen. • Enter instructions to draw a given shape. • Identify (and use)where it would be possible to use repeated commands • Change commands and parameters to resize or change a shape. • Predict the outcome of an algorithm or program. • Write an algorithm to produce a given shape/ path using the repeat command. • Explain how a drawing or effect has been achieved. • Test and refine a program by varying its parameters.	
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*	• Understand a computer network consists of a number of computers and devices that are connected. • Understand that you can use the Internet for activities other than web browsing. • Suggest a range of activities the internet can be used for .		• Know the basic steps that can help distinguish safe and credible websites. • Understand that copyright is the author's right of ownership and it is illegal to steal other people's material.

	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, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.*	• Navigate a website using hyperlink and the back button. • Know the main features of web browsers. • Enter URLs into an address bar of a browser . • Question the credibility of the information given on a website. • Know that the search engine gives a list of websites based on key words. • Cross check information given on one website with that of another.		
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*		• Collect data, enter into a database and save. • Use the search/sort facility in a database to find the answer to questions. • Create their own questions to be answered by searching a database.	
Ongoing		• Can identify key computer peripherals and describe their purpose.		

Step	b	w	s	s+
No. of statements required	<8	8-16	16-24	24+

Year 5

Unit	NC links	Information Technology	Computer Science	Digital Literacy (including safety)
iSafe	*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.* .			• Know the need to be safe online and identify some action they can take to secure safety. • Know that personal information should only be given to trusted sources. • Understand how email works. • Distinguish between a safe and unsafe email by the title and sender. • Know how to protect themselves from online behaviour that could lead to cyber crime • Understand the consequences of inappropriate online behaviour.
iProgram unit 1 and 2	*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.*		• Write and amend computer programs. • Program a number of algorithms that achieve a specific outcome • Use repetition, variables and conditional statements in computer Programs • Test, debug and refine computer programs	
iAlgorithm	*Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.* *Solve problems by decomposing them into smaller parts.*		• Understand that a linear search involves checking information one-by-one. • Understand that networks connect a group of things	
iWeb	*Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they*	• Know that the world wide web consists of many websites and that web pages can be accessed using the internet. • Know that web pages are written in a		

	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.* *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.*	code • Know that you can change what is displayed on a web page • Understand that you can change how content on a web page looks • Understand that the World Wide Web is one of a number of services provided on the internet • Can communicate and collaborate online • Use search technology and clear search terms to view web pages and obtain data • Know that HTML code tells the computer what to put where on a web page • Understand that HTML tags tell a computer what content to display between them (e.g. an image, text or hyperlink) • Understand that CSS tells the computer how content inside HTML tags should look		
IPad Algorithms and programming	*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.*		• Identify where it wound be possible to use repeated commands • Use repetition and variables in computer programs • Write an algorithm to produce a specific outcome using repetition and procedure calls • Write and amend more complex programs to create a variety of outcomes • Test, debug and refine computer programs.	

Step	b	w	s	s+
No. of statements required	<8	8-16	16-24	24+

Year 6

Unit		Information Technology	Computer Science	Digital Literacy (including safety)
iSafe	*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*			• Can find relevant information online and critically evaluate its plausibility and usefulness. • Identify a number of the risks associated with work and leisure in a digital society and act to minimise them. • Use digital tools to communicate and collaborate online. • Understand the consequences of plagiarism and cyber piracy. • Understand the importance of having a positive online reputation.
iProgram **&** **iPad Algorithms and programming**	*Work with variables and various forms of input and output.* *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.* *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.*		• Write and amend more complex computer programs to create a variety of outcomes • Use iteration(repeats and loops), variables and conditional statements (if..then) in computer programs • Create procedures that call on other procedures using broadcasting blocks and produce a result • Create and use efficient methods of iteration, and nested conditional statements (if..then..if etc.) • Systematically test computer programs for bugs and make them work as expected • Test computer programs and correct most errors • Critically analyse code and suggest more elegant solutions	
iAlgorithm	*Use logical reasoning to explain how some simple algorithms work and to detect and correct*		• Use logical reasoning to explain how a simple algorithm works	

	errors in algorithms and programs. *Solve problems by decomposing them into smaller parts.*		and to detect and correct errors in algorithms and programs.	
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 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, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information*	• Understand that a computer network consists of a number of computers and devices that are connected • Know that the internet is an example of a computer network • Use search technology to find things out • Know that internet search engines list search results in order of popularity • Know that the internet is an example of a Wide Area Network • Understand that the World Wide Web is one of a number of services provided by the internet • Understand that special devices and services are required to connect to the internet • Use search technology and clear search terms to view web pages and obtain data • Can explain how internet search results are ranked		
iAPP	*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 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*		• Write and amend more complex computer programs to create a variety of outcomes • Use iteration(repeats and loops), variables and conditional statements (e.g. if. .then) in computer programs • Define and use variables and procedures • Systematically test computer programs for bugs and make them work as expected • Critically analyse code and suggest more elegant solutions	• Analyse the impact of mobile technology and apps on modern culture

	input and output; generate appropriate inputs and predicted outputs to test programs. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.			

Step	b	w	s	s+
No. of statements required	<8	8-16	16-24	24+