

WORLINGHAM GEVG PRIMARY (GHOOL

COMPUTING SUBJECT PROGRESSION



	E-Safety					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Knowledge	To know how to create, name and save my digital work. To understand what information is safe and unsafe online. To understand how to communicate safely online. To know what personal information they need to keep safe.	To know what a digital footprint is. To know how to use keywords when searching the internet. To know how to tell if a website is safe. To visit and review different websites. To learn which websites can be trusted based on the information they ask for	To understand differences between bullying and cyberbullying. To understand how products are advertised on the internet and the effect on them. To know what a password is. To know how to keep their information safe. To identify safe and unsafe emails.	To understand what Words and actions online are hurtful. To know what plagiarism is. To know what information needs to stay private and what can be shared. To know how to be a good digital citizen.	To identify spam emails and how to stay safe from them. To know how to cite people's work. To understand fake photography on the internet. To know how to create strong passwords. To know how to avoid content on the internet which is not appropriate.	To know the similarities and differences between bullying and cyberbullying. To explore cyberbullying scenarios in and out of school. To identify secure and unsecure websites. To know where to go to find information about staying safe online. To understand the role stereotypes play within the online world.
Skills	I can understand where to go for help and support when he/she has concerns about content on the internet.	I can recognise common uses of technology beyond school. I can use safely, keeping personal information private.	I can use technology safely and respectfully, keeping personal information private. I can recognise acceptable and unacceptable behaviour.	I can use technology responsibly and understand that communication online may be seen by others. I can understand where to go for support when he/she has concerns about content on the internet or other technologies.	I can understand the need to only select age appropriate content.	I can use technology respectfully and responsibly. I can identify a range of ways to report concerns about content in and out of school. I can have good judgement when evaluating digital content.
Vocabulary	Support Concern Online Communicate Accept Reliable Copyright	Personal Private Safely Digital Cyberbullying Profile Report Digital footprint	Respectful Acceptable Unacceptable Social media Privacy Email	Communication Digital citizen Plagiarism	Age appropriate Selection Spam Phishing Citation Password	Responsible Respect Evaluating Stereotype Secure Unsecure http(s)
Greater Depth	To give explanations about why certain information is and is not safe online. To know different communication platforms online and know which ones are safe and unsafe.	To understand the dangers of unsafe websites and to know what to do if they come across these. To have a confident understanding of what information website should and should not ask for and	To clearly recognise online advertisements, what they mean and how they are chosen for display on your webpage. To create a selection of strong passwords and know about information which can be	To confidently understand the key aspects of being a good digital citizen, including how their actions online can affect others. To know how Words and actions online can differ in meaning and their effect on	To cite other's work effectively and understand the reasons for doing this. To participate in reasoned discussions with others regarding posts on the internet including inappropriate content and photography.	To solve problems involving cyberbulling in a variety of settings, using clear and reasoned discussions for the outcome of these scenarios. To show how different scenarios could differ

To know how these could be made safe. To understand what their personal information is and explain why this shouldn't be shared on the internet. To be able to explain what could happen with personal information on the internet and what	what to do if they think this may be unsafe. To find clues for unsafe websites and give reasoned explanations about why they think this. To partake in reasoned discussions about websites they have visited and review this, thinking about their links to	easily identified within passwords. To give reasoned discussions regarding weak password selection, including explaining the consequences of this. To recognise a variety of safe and unsafe websites and emails and what to do if	others compared to face to face communication. To give reasoned explanations for information which can and cannot be shared online.	They should understand the differences within these and also know how they compare to real life problems. To solve problems which involve online content.	depending on the reaction to the problem. To know about sterotypes within an online environment and how these grow.
information	online safety.	they see these.			

	Using Comput					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Knowledge	To identify the technology used in school. To give examples of technology they have at home. To take photos using ipads/tablets. To use ipads/tablets for creating photo collages. To create pictures using shapes on paint.	To organise their documents so that files are easy to save and retrieve information. To be able to edit previously saved documents. To create art using the appropriate computer software. To use paint tools to recreate art work.	To know what an input and output device is. To recognise and use these in different forms (headphones, camera, printer, etc). To know what a computer network is. To access different information which has been shared across computer networks. To search the internet for appropriate information. To create stop start animations.	To know what a server is and how they connect to a network. To take and retrieve photos from a camera/tablet by importing through other devices. To create a movie trailer using Moviemaker. To understand what a sensor is. To know that search engines rank results. To use search engines effectively to select the best information.	To understand how to use an email, including signing in and out. To send and receive emails. To add attachments to emails. To send documents via email to peers and teachers. To use and locate different filters in search technologies.	To use computer networks to share information. To create their own website using google sites (create email and add new site). To publish their website for others to visit and share. To search the internet for different medias. To understand the use of 'www.'. To create photo slide shows using different effects.
Skills	I can use technology to create digital content. I can recognise common uses of technology in the home and school environment.	I can use technology to create digital content, comparing the benefits of different programs. I can use technology purposefully to create, organise, store, manipulate and retrieve digital content.	I can select and use a variety of software to accomplish goals with support. I can use simple search technologies. I can use a variety of input and output devices. I can understand that computer networks enable the sharing of data and information. I can understand that the internet is a large network of computers and that information can be shared between computers.	I can select, use and combine a variety of software, systems and content that accomplish given goals. I can understand how results are selected and ranked by search engines. I can use other input devices such as cameras and sensors. I can identify servers connecting to a network.	I can select, use and combine appropriate software for a task to design and create content for a given audience. I can independently select and use appropriate software. I can begin to use filters in search technologies and understand how results are selected and ranked, using this appropriately. I can begin to use internet services to share and transfer data to a third party. (Google Drive/Classroom)	I can select, use, and combine a variety of software to design and create content for a given audience, including collecting, analysing, evaluating and presenting data. I can be discerning when evaluating digital content. I can use filters in search technologies effectively. I can understand how computer networks enable computers to communicate and collaborate. I can use internet services of his/her own creation to share and transfer data to a third party. (Google Drive)

	Labourek	Data	Lancet	C	C	Diamete
Vocabulary	Internet	Data	Input	Camera	System	Blogging
	Technology	Information	Output	Sensors	Internet services	Google sites
	Website	Search	Network	Server	World wide web	Transfer
	Digital	Minimise	Software	Search engine	Filter	Google Drive
	Exit	Folder	Hardware	Moviemaker	Attachment	
	Save	Paint			Email	
	Open					
Greater	To know what	To create	To recognise	To give clear	To coach others	To use
Depth	different	folders within	how different	and confident	when sending	computer
2000	technology is	their	devices can	explanations	emails and	networks
	school is used	documents	contain both	regarding the	include different	effectively
	for and who	which are	input and	use of servers	features	when sharing
	would use it.	named	output devices	and their	including the use	and retrieving
	To understand	correctly so that	and how these	reasons for	of draft emails,	a variety of
	certain	digital work	can link	using them.	saving, flagging	information to
	technology	can be stored	together.	To import and	and deleting.	create digital
	which may be	and retrieved	To make links	variety of	To use filters	content.
	found either at	correctly.	within	information	within search	To carefully
	home or school	To compare	technology	through	technologies	analyse
	but not both	different	regarding	different	with a clear	information
	and explain	programs	different input	hardware and	purpose and	collected to
	why.	which can be	and output	servers to	find this	ensure that this
	To take photos	used for the	devices.	create digital	information fast	is most
	which are all	same task and	To know how a	content.	and effectively	appropriate for
	based around a	give reasoned	computer	To explain their	for use in their	the task and
	theme, using	explanations	network has	use of search	digital content.	explain its use
	different focuses	regarding the	allowed them	engines		using reasoned
	and distances	most	to access a	effectively so		explanation.
	to create a	appropriate	variety of	that they		To share their
	collage which	one to use and	content on the	retrieve the		digitally
	includes a	why.	internet and	most		created content
	variety of shots.	To coach peers	use this	appropriate		with others in a
	To explain	to show	effectively.	information,		variety of
	using reasoned	intricate and	To give clear	including the		different ways
	discussion their	effective	and confident	use of ranking		including
	chosen digital	computing	explanations	results.		networks,
	art and how	skills.	when discussing			emails and
	their have used		computer			online
	the program		networks and			publishing.
	effectively to		identify			
	create this.		examples.			

	Word Processing						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Knowledge	To open and save Word documents. To change the font and size of text within a Word document. To change the colour of writing in a Word document. To add borders into a Word document.	To add pictures into a Word or Powerpoint document. To add clip art into a document. To explore different ways to add pictures into documents. To add information onto different slides within a Powerpoint. To know when Word or Powerpoint should be used to display information.	To use transitions and animations on Powerpoint slides. To adjust and reposition pictures using the cursor. To create a variety of titles using different effects on a page.	To use simple Excel spreadsheet formulae to generate information in tables. To create bar graphs using Microsoft Excel. To print screen/copy information and show this using appropriate software (Word?). To import information into different software (Powerpoint). To create fact files using Word and combining this with other software.	To use a given template to create leaflets using Publisher. To use Microsoft Word effectively for a selected task, adding text boxes and right clicking for synonyms. To add Word into folders which are easily retrieved. To choose the best way to present information given.	To select and use a variety of templates on Publisher to create leaflets appropriate for their audience. To add Excel information into Publisher (e.g. graphs). To sort and filter information using formulae and tables. To create multiple series graphs using Excel. To make correct software choices when creating digital content.	
Skills	I can use technology to create digital content. I can open and add to Microsoft Word documents.	I can use technology to create digital content, comparing the benefits of different programs. I can use technology to retrieve digital content. I can use Powerpoint with support. I can use Microsoft Word effectively.	I can use a variety of software to accomplish goals with support. I can use Powerpoint.	I can use a range of software with support to complete appropriate tasks. I can use Excel spreadsheets. I can create graphs on Excel. I can use Powerpoint effectively.	I can select, use and combine appropriate software for a task to design and create content. I can organise folders efficiently to store and retrieve saved work. I can use Microsoft Word for a variety of reasons. I can use Publisher.	I can select, use, and combine a variety of software to design and create content for a given audience including collecting, analysing, evaluating and presenting data. I can collect, analyse, evaluate and present data and information. I can use Excel spreadsheets for a variety of reasons. I can use Publisher independently.	
Vocabulary	Font Type Save Retrieve File Keyboard Mouse Text box Undo/Redo Word	Copy Paste Image Page orientation Cut Slides Drag Powerpoint	Cursor WordArt Tight Square Transition Organising Background Print	Bullet point Print screen Hyperlink Spreadsheet Formulae Column Row Cell Import Upload	Publisher Template Page design	Multiple series Filter Sort	

Greater Depth

To choose fonts appropriate for the Word document being created. To change the size and font of the text according to where they are located on the document and the size of the Words they are writing. To choose appropriate borders for a Word document and create a theme using their choice of font, size and border. To successfully coach others to add these features. To explain why it might be appropriate to need to change these features on a document.

To know why pictures would be used in a document. To choose the correct style of picture (clip art, internet) and why these would be appropriate. To give reasoned explanations about the appropriate software to use for a task (Word or Powerpoint). To add new slides within a **Powerpoint** showing different layouts. To successfully coach others in these features

To choose animation and transition which adds to the fluency of the Powerpoint, including the order in which these appear on the slides. To use pictures for a variety of different reasons within a **Powerpoint** and to create different effects on the page. To use headings and subheadings effectively within Powerpoints, choosing title effects to show this and giving reasoned justification for this.

To use a given formulae confidently and adapt it within Excel to create different tables of information. To use formulae for different reasons and create values within larger tables of information. To edit graphs created within Excel using axis and titles. To make a careful selection of the most appropriate graph to use for the information being displayed and give reasoned justifications for this. To confidently import information from other hardware and software.

To understand the layout of given templates and how information would fit into these. To make careful selections for where information would go within a Publisher document. To give reasonina behind this and how this aids to the overall fluency and presentation of the leaflet. To give evidence for chosen presentation techniques when using different software (Word and Publisher).

To use reasoning when explaining their chosen template on Publisher, which links directly to the audience and purpose of their leaflet. To combine information from different software to create more complex documents, presenting these in clear and effective ways within their document. To explain their chosen positioning of information within their leaflet. To coach others when using different programs for displaying content

	Coding					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Knowledge	To know what an algorithm is. To recognise different algorithms on different coding systems (beebot, 2simple 2Go coding). To create simple algorithms using coding systems. To draw physical algorithms and plan how to program devices. To predict where physical coding systems will move and program them correctly.	To use espresso coding to write simple algorithms. To change blocks on a scto change its direction and sound. To predict where Scratch and beebot devices will move based on the algorithm given. To change beebot and Scratch algorithms to ensure they reach a specific goal.	To know how to use scratch program correctly. To use scratch for creating simple programs and algorithms. To design algorithms with more than one step. To predict the result of simple algorithms. To debug simple codes using scratch.	To know how to decompose different activities. To plan algorithms for creating a simple game. To create a game using scratch. To add two step algorithms into kodu. To create algorithms for different kodu maps which complete a sequence. To explain why programs don't achieve a particular goal through their algorithms. To predict programs based on their algorithms. To debug programs so algorithms work correctly.	To link BBC Microbit with a laptop using Bluetooth. To program BBC Microbit using algorithms including repetition and sequencing. To identify and correct problems within BBC Microbit algorithms. To use kodu to create complex algorithms. To use repetition on kodu to efficiently create an algorithm. To create a quiz using scratch where answers can be selected.	To know what sequencing, selection and repetition is. To plan and create a game with a variable which includes real-life scenarios and problems Scratch). To find problems within systems and explain how to correct them.
Skills	I can understand what algorithms are and how they are implemented on digital devices. I can predict the behaviour of simple programs.	I can create simple programs. I can use logical reasoning to predict the behaviour of simple programs. I can create and debug simple programs. I can understand that programs execute by following precise and unambiguous instructions. I can debug simple programs by using logical reasoning to predict the actions instructed by the code.	I can design, write and debug programs that control or simulate virtual events. I can use logical reasoning to explain how some simple algorithms work.	I can decompose programs into smaller parts. I can use logical reasoning to detect and correct errors in algorithms and programs.	I can design, input and test an increasingly complex set of instructions to a program or device. I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. I can test simple programs that use sequencing and repetition. I can use logical reasoning to explain how increasingly complex algorithms	I can solve problems by decomposing them into smaller parts. I can create programs using variables. I can use sequences, selection and repetition to explore real world problems. I can use logical reasoning to explain how increasingly complex algorithms work. I can detect and correct errors in algorithms and programs efficiently.

Vocabulary	Program Algorithm Beebot Scratch	Debug	Virtual Control	Decompose Kodu Rover	work to ensure a program's efficiency. Repetition Selection Sequencing BBC Microbit	Variables
Greater Depth		To begin creating more complex algorithms within the physical systems used. To compare algorithms within these systems in order to adapt their important features. To debug algorithms using both written and oral logical reasoning. To create new algorithms based on debugged systems, having decomposed the initial algorithm to find the problem within.	To use decomposition to break down algorithms in order to create a more complex algorithm within scratch. To use generalisation to apply an understanding from algorithms in physical systems (beebot) to virtual programs (scratch). To evaluate algorithms created by asking 'How can it be improved?' To coach other peers in using virtual programs so they have a secure understanding.	To focus entirely on the important details presented when decomposing programs into smaller parts. To apply an understanding of a wide variety of coding systems into their logical reasoning. To confidently explain how to create algorithms within a program by teaching to orally to others. To look at how previous programs were debugged and apply this to new programs and systems		To explore complex algorithms within different programs and use detailed logical reasoning to explain how they work for different purposes. To create algorithms and programs which can be expanded through a variety of different variables. To explain these variables within each individual situation. To show how computational thinking can be used across different subjects (e.g. music).