LONG CRENDON SCHOOL
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Computing Knowledge and Skills Progression

Year	National Curriculum	Topic & Trips	Knowledge	Skills	Vocabulary
EYFS			To know about the use of technology in the home. To know that various types of technology, such as ipads, PC's can be used to find out information to support interests and learning e.g. use of the internet. To know and talk about the different factors that support their overall health and wellbeing e.g. sensible amounts of 'screen time'.	•To learn how to operate a camera to take photographs of meaningful creations or moments. •To learn how to explore and play with hardware to develop familiarity and introduce relevant vocabulary. •To recognise and identify familiar letters and numbers on a keyboard. •To develop basic mouse skills such as moving and clicking.	Computer Monitor Keyboard Mouse Swipe Touchscreen Smartboard iPad Internet
Year 1 1 (Autumn)	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	Unit 1.1 Online Safety & Exploring Purple Mash	Understand what the internet is and how it can be used. Recognise that the internet may affect mood or emotions. Recognise how internet use can affect and upset others. Identify which information is appropriate to share and post online and which is not. **Key resources: Paint Projects, 2Connect, 2Count and 2Explore**	•To log in safely. • To learn how to find saved work in the Online Work area and find teacher comments. • To learn how to search Purple Mash to find resources. • To become familiar with the icons and types of resources available in the Topics section. • To start to add pictures and text to work. • To explore the Tools and Games section of Purple Mash. • To learn how to open, save and print. • To understand the importance of logging out	Alert Avatar Button Device File name Log out Icon Log in Notification Menu My work area Private password
2 (Autumn)	Understand what algorithms are; how they are implemented as programs on digital	Unit 1.2 Grouping & Sorting	Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand	•To sort items using a range of criteria. • To begin to think logically about the steps of a process. • To sort items on the computer using the 'Grouping' activities in Purple Mash.	Criteria Groups Sort

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	devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs		Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code **Key resources: 2DoIt Yourself**	• To introduce the term 'algorithm' to describe logically following a process.	
1 (Spring)	Use logical reasoning to predict the behaviour of simple programs	Unit 1.3 Pictograms	When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program. **Key resources:2Connect and 2Count**	•To understand that data can be represented in picture format. • To contribute to a class pictogram. • To use a pictogram to record the results of an experiment.	Collect Data Compare Data Pictogram Record Results Title
2 (Spring)	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Unit: 1.4 Lego Builders	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count **Key resources: Paint Projects**	• To compare the effects of adhering strictly to instructions to completing tasks without complete instructions. • To follow and create simple instructions on the computer. • To consider how the order of instructions affects the result.	Algorithm Code Computer Debugging Instructions Program

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1 (Summer)	Recognise common uses of information technology beyond school.	Unit: 1.5 Maze Explorers	Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair. **Key resources: 2Go**	•To understand the functionality of the direction keys. • To understand how to create and debug a set of instructions (algorithm). • To use the additional direction keys as part of an algorithm. • To understand how to change and extend the algorithm list. • To create a longer algorithm for an activity. • To set challenges for peers. • To access peer challenges set by the teacher as 2Dos.	Algorithm Challenge Direction Instruction Left and Right Route Undo Unit
2 (Summer)	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Unit: 1.6 Animated Story Books	Children will know what an e-book is and how to log on to the '2Create a Story' tool. They will be able to add animation to a story. They will be able to add sound to a story, using their voice recordings or music and adapt their story by adding backgrounds and 'copying' and 'pasting' pages. **Key resources 2Go 2Create a Story**	• To introduce e-books and the 2Create a Story tool. • To add animation to a story. • To add sound to a story, including voice recording and music the children have composed. • To work on a more complex story, including adding backgrounds and copying and pasting pages. • To share e-books on a class display board.	Animation Clip-art Gallery E-book Edit Font Sound Sound Effect Text
Year 2 1 (Autumn)	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	Unit: 2.1 Coding	Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code. **Key resources 2Go 2Dos – Free Code Chimp & Tools**	•To understand what an algorithm is. • To create a computer program using an algorithm. • To create a program using a given design. • To understand the collision detection event. • To understand that algorithms follow a sequence. • To design an algorithm that follows a timed sequence. • To understand that different objects have different properties.	Button. Collision Detection Debug/Debugging Action. Algorithm Background Event. Click events Execute Implement Interval

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				• To understand what different events do in code. • To understand the function of buttons in a program. • To understand and debug simple programs	Properties Object Run Interaction Output
2 (Autumn)	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	Unit: 2.2 Online Safety	Explain what is meant by online information. Recognise what information is safe to be shared online. Explain why we need passwords and what makes a strong password. Understand that they need to ask permission before sharing content online and explain why. Understand that they have the right to deny their permission to information about them being shared online. Say who they can ask for help with online worries. Use some strategies to work out if online information is reliable or not. **Key resources: Sharing and Email**	• To know how to refine searches using the Search tool. • To use digital technology to share work on Purple Mash to communicate and connect with others locally. • To have some knowledge and understanding about sharing more globally on the Internet. • To introduce Email as a communication tool using 2Respond simulations. • To understand how we should talk to others in an online situation. • To open and send simple online communications in the form of email. • To understand that information put online leaves a digital footprint or trail. • To identify the steps that can be taken to keep personal data and hardware secure.	Search Filter Internet Attachment Digital footprint Email Personal information Private information Secure Search Sharing
1 Spring	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Unit: 2.3 Spreadsheets	Children demonstrate an ability to organise data using, for example, a database such as 2 Calculate. Children can explain what rows and columns are in a spreadsheet. They can open, save and edit a spreadsheet. They can add images from the image toolbox and allocate them a value. Children can add the count tool to count items. **Key resources: 2Calculate**	• To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine. • To learn how to copy and paste in 2Calculate. • To use the totalling tools. • To use a spreadsheet for money calculations. • To use the 2Calculate equals tool to check calculations. • To use 2Calculate to collect data and	Block Graph Cell Column Copy Count tool Data Drag Equals Equals Tool Label Row

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				produce a graph.	Speak Tool Table Total
2 (Spring)		Unit: 2.4 Questioning	Children understand that the information on pictograms cannot be used to answer more complicated questions. Children understand what is meant by a binary tree. Children understand that questions are limited to 'yes' and 'no' in a binary tree. Children understand what is meant by a database. **Key resources: 2Count; 2Investigate and 2Question**	• To learn about data handling tools that can give more information than pictograms. • To use yes/no questions to separate information. • To construct a binary tree to identify items. • To use 2Question (a binary tree database) to answer questions. • To use a database to answer more complex search questions. • To use the Search tool to find information.	Binary Tree Data Database Field Pictogram Question Record Search Sort
1 (Summer)	Recognise common uses of information technology beyond school.	Unit: 2.5 Effective Searching	Children will understand the terminology associated with searching. They will gain a better understanding about searching on the Internet. Children learn how to effectively retrieve relevant, purposeful digital content using a search engine. **Key resources: Google, Ask. Yahoo, Bing, Aol**	• Children can recall the meaning of key internet terms. • Children have completed a quiz about the Internet Children can identify the basic parts of a web search engine search page. • Children have learnt to "read" a web search results page. • Children can search for answers to a quiz on the internet. • To create a leaflet to help someone search for information on the Internet.	Internet Search Search Engine Domain Network Digital Footprint Web Page Website World Wide Web
2 Summer		Unit: 2.6 Creating Pictures	Children can understand what is meant by impressionist art. They can explain what pointillism is.	• To learn the functions of the 2Paint a Picture tool. • To learn about and recreate the Impressionist style of art (Monet,	Impressionism Palette Share Pointillism

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			Children can describe the main features of Piet Mondrian's work and can describe the main features of art that uses repeating patterns. Children can describe surrealist art. **Key resources: 2Paint a Picture**	Degas, Renoir). • To recreate Pointillist art and look at the work of pointillist artists such as Seurat. • To learn about the work of Piet Mondrian and recreate the style using the lines template. • To learn about the work of William Morris and recreate the style using the patterns template. • To explore surrealism and eCollage.	Template Surrealism
Year 3 1 (Autumn)	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	Unit: 3.1 Coding	Children can explain what Object, Action, Output, Control and Event are in computer programming. Children can explain how their program simulates a physical system, i.e. my vehicles move at different speeds and angles. Children can explain what a variable is in programming. Children can explain why variables need to be named. Children can explain what debug (debugging) means. Children can explain why it is important to save their work after each functioning iteration of the program they are making. **Key resources**:**2Dos 2Chart Free code chimp**	• To understand what a flowchart is and how flowcharts are used in computer programming. • To understand that there are different types of timers and select the right type for purpose. • To understand how to use the repeat command. • To understand the importance of nesting. • To design and create an interactive scene.	Action Algorithm Tools Alert Background Click Event Bug Collision Detection Event. Code. Command Debug/Debugging Implement Scene Timer Object Nesting Properties Repeat Test Sequence Turtle Object Interval
2 (Autumn)	Use technology safely, respectfully	Unit: 3.2 Online Safety	Children demonstrate the importance of having a secure password and not sharing this	To know what makes a safe password. • To learn methods for keeping	Appropriate Spoof

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	and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.		with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash. They know more than one way to report unacceptable content and contact **Key resources: 2Dos, 2Connect, 2Publish Plus, 2Blog, 2Write**	passwords safe. • To understand how the Internet can be used in effective communication. • To understand how a blog can be used to communicate with a wider audience. • To consider the truth of the content of websites. • To learn about the meaning of age restrictions symbols on digital media and devices.	Password Blog Internet Personal Information Vlog Permission Reputable source. Reliable Source Website Verify
1 (Spring)	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Unit: 3.3 Spreadsheets	Children will understand how to create a table of data on a spreadsheet and use a spreadsheet program to automatically create charts and graphs from data. Children will know how to use the 'more than', 'less than' and 'equals' tools to compare different numbers and help to work out solutions to sums. They will know how to describe a cell location in a spreadsheet using the notation of a letter for the column followed by a number for the row. **Key resources: 2Calculate**	•To create pie charts and bar graphs. To use the 'more than', 'less than' and 'equals' tools. •To use the 'more than', 'less than' and 'equals' tools. •To introduce the Advanced Mode of 2Calculate and use coordinates.	Data Advanced Mode Less Than/More Than Cell Address Equal Tool Equals Rows Columns Pie Chart Quiz Tool Spin Tool Table
2 (Spring)	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Unit: 3.4 Touch Typing	Children will develop the ability to type on a keyboard using both hands without looking at the keys. They will recognise which is the best hand and finger to use for each key on a keyboard and be able to press multiple keys at the same time in order to increase the speed, accuracy and ease of typing on a keyboard. **Key resources: 2Type**	• To introduce typing terminology. Understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. • To practise and improve typing for home, bottom and top rows. • To practise the keys typed with the left hand.	Posture-The correct way to sit at the computer. Keys-Buttons that are pressed on a computer keyboard or typewriter. These can be described by their position;

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			BBC Dance Mat	•To practise the keys typed with the right hand.	bottom row, top row and home row (middle row). Space bar-The bar at the bottom of the keyboard. Typing-The action or skill of writing something by means of a typewriter or in this case a computer.
1 (Summer)	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	Unit: 3.5 Email	Pupils explore emailing. They appreciate that email is a method of sending electronic communication from one device to another. Students learn to send, edit and manage emails whilst staying safe online. **Key resources: 2Email 2Connect 2Do It Yourself**	•To think about different methods of communication. • To open and respond to an email using an address book. • To learn how to use email safely. • To add an attachment to an email. • To explore a simulated email scenario.	Emailing Account Compose Inbox Password Trusted Contact Save to draft Address book Attachment BCC CC Computer Cyberbully Domain Email Emoji Information Log Off Log on Password Spam Username
2 (Summer)	Select, use and combine a variety of software (including internet services) on a range of digital devices to	Unit: 3.6 (Unit 3.9) Presenting with Microsoft PowerPoint	Pupils understand that a presentation program is used to present information to an audience in an engaging way, such as including text, pictures and videos. PowerPoint is an example of a presentation program.	• To understand the uses of PowerPoint. • To create a page in a presentation. • To add media to a presentation. • To add animations to a presentation. • To add timings to a presentation. • To use the skills learnt to design and	Animation Text box Transition WordArt Presentation Slide

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	design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.		**Key resources: Power Point**	create an engaging presentation.	Slideshow Media Font formatting Border Properties Layer
Year 4 1 (Autumn)	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	Unit: 4.1 Coding	Pupils will understand that coding is putting information and commands into a program. They will know how to create a clear set of instructions for computers to follow and that these instructions determine what actions a computer can and cannot take. Pupils will build on their understanding of coding as allowing programmers to build programs, such as websites and apps. **Key resources: Tools 2Dos 2Chart Free code gibbon**	• To begin to understand selection in computer programming. • To understand how an IF statement works. • To understand how to use coordinates in computer programming. • To understand the 'repeat until' command. • To understand how an IF/ELSE statement works. • To understand what a variable is in programming. • To use a number variable. • To create a playable game	Action Alert Background Button Command Debug/Debugging Algorithm Code Execute Design
2 (Autumn)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of	Unit: 4.2 Online Safety	Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.	•To understand how children can protect themselves from online identity theft. • To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. • To identify the risks and benefits of	AdFly An online advertising marketplace that allows publishers to monetize their website traffic by placing

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	ways to report concerns about content and contact		**Key resources: 2Connect 2Investigate SPAM**	installing software including apps. • To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. • To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • To identify the positive and negative influences of technology on health and the environment. • To understand the importance of balancing game and screen time with other parts of their lives.	advertisements on their site. Key Vocabulary Plagiarism Attachment Citation Collaborate Cookies Copyright Digital footprint Malware Phishing Ransomware SMART rules SPAM Virus Watermark
1 (Spring)	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	Unit: 4.3 (Actual unit 4.4) Writing for Different Audiences	Pupils will understand how font size and style can affect the impact of a text. They will know How text formatting to make a piece of writing fit for its audience and purpose. **Key resources: 2Publish Plus 2Simulate**	•To explore how font size and style can affect the impact of a text. • To use a simulated scenario to produce a news report. • To use a simulated scenario to write for a community campaign	Campaign Format. Font Genre Opinion Reporter Viewpoint

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1 (Spring)	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Unit: 4.4 (actual unit 4.5) Logo	Pupils will develop a text-based coding language used to control an on-screen turtle to create mathematical patterns. **Key resources: 2Logo**	•To learn the structure of the coding language of Logo. • To input simple instructions in Logo. • Using 2Logo to create letter shapes. • To use the Repeat function in Logo to create shapes. • To use and build procedures in Logo.	Debugging Logo Prediction LOGO Commands (e.g FD, BK, RT, LT). Multi Line Mode Pen Down Pen Up. Procedure
2 (Spring)	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	Unit: 4.5 (actual unit 4.6) Animation	Pupils will understand animation is the process of giving the illusion of movement to drawings, models, or inanimate objects. Animated motion pictures and television shows are highly popular forms of entertainment. **Key resources: 2Animate**	• To discuss what makes a good animated film or cartoon. • To learn how animations are created by hand. • To find out how animation can be created in a similar way using the computer. • To learn about onion skinning in animation. • To add backgrounds and sounds to animations. • To be introduced to 'stop motion' animation. • To share animation on the class display board and by blogging.	Animation Frame FPS (Frames Per Second). Onion Skinning. Pause Stop motion
1 (Summer)	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for	Unit: 4.6 (actual unit 4.7) Effective Searching	Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level. **Key resources: Purple Mash, 2Publish Plus, search (Google, Yahoo, Bing etc)**	• To locate information on the search results page. • To use search effectively to find out information. • To assess whether an information source is true and reliable.	Balanced View. Internet Easter eggs Key words Reliability Results page

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	communication and collaboration ♣ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content				
2 (Summer)	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	Unit: 4.8 Hardware Investigators	Pupils will understand that: -hardware refers to the physical parts of a computer or device. -The parts inside the computer casing are often called the components. -The parts that are attached to the computer case are called peripherals. -Software describes the programs that run on the computer **Key resources: 2Connect 2Quiz**	• To understand the different parts that make up a computer. • To recall the different parts that make up a computer.	Components CPU Graphics Card Also known as a video card. Hard Drive Input. Motherboard. Network Output Peripherals. RAM Software
Year 5 1 (Autumn)	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Unit: 5.1 Coding	Children will know how to attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children will be able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.	•To begin to simplify code. • To create a playable game. • To understand what a simulation is. • To program a simulation using 2Code. • To know what decomposition and abstraction are in computer science. • To a take a real-life situation, decompose it and think about the level of abstraction. •To understand how to use friction in code. •To begin to understand what a function is	Abstraction Algorithm Concatenation Action. Debug\ Debugging Flowchart Decomposition Event Function Input

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	decomposing them into smaller parts.		**Key resources: Tools 2Dos 2Chart Free code gorilla**	and how functions work in code. • To understand what the different variables types are and how they are used differently. • To understand how to create a string. • To understand what concatenation is and how it works.	Output Repeat Sequence Properties Variable
2 (Autumn)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	Unit: 5.2 Online Safety	Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others. **Key resources: Display Boards 2Paint a Picture and 2Publish Plus**	•To gain a greater understanding of the impact that sharing digital content can have. • To review sources of support when using technology and children's responsibility to one another in their online behaviour. • To know how to maintain secure passwords. • To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. • To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. • To learn about how to reference sources in their work. •To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. •To ensure reliability through using different methods of communication.	Citation Collaborate Communication Copyright Creative Commons Licence Encrypt. Ownership PEGI ratings Phishing Personal information Malware Reliable source Spoof Validity
1 (Spring)	Use sequence, selection, and repetition in	Unit: 5.3 Spreadsheets	Pupils will understand that a spreadsheet is a tool that is used to store, manipulate and analyze data. They will know that data in a	• To use formulae within a spreadsheet to convert measurements of length and distance.	Rows Data

	programs; work with variables and various forms of input and output		spreadsheet is organized in a series of rows and columns and can be searched, sorted, calculated and used in a variety of charts and graphs. **Key resources: 2Calculate**	• To use the count tool to answer hypotheses about common letters in use. • To use a spreadsheet to model a real-life problem. • To use formulae to calculate area and perimeter of shapes. • To create formulae that use text variables. • To use a spreadsheet to help plan a school cake sale.	Advance mode Formula. Spreadsheet Variable. Columns. Formula. Formula Bar Totalling tool 'How Many?' Tool
2 (Spring)	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	Unit: 5.4 (actual unit 5.5) Game Creator	Pupils will know that 2DIY3D allows users to create a playing area, such as a maze, in 2D and then turn it into a 3D computer game with the aim is to avoid the 'baddies' and collect 'treasure'. **Key resources: 2DIY3D**	• To plan a game. • To design and create the game environment. • To design and create the game quest. • To finish and share the game. • To self and peer evaluate.	Evaluation Feedback Image Instructions Promotion. Quest Scene. Screenshot Texture
1 (Summer)	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a	Unit: 5.5 (actual unit 5.7) Concept Maps	Pupils will know that a concept map is a pictorial way of showing relationships between concepts and ideas. They will understand that a concept map allows you to show information, pictures and links to support an idea or concept.	•To understand the need for visual representation when generating and discussing complex ideas. • To understand the uses of a 'concept map'. • To understand and use the correct vocabulary when creating a concept	Concept Concept Map Connection Collaborate Story mode Node Presentation mode2

	range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information		**Key resources: 2Connect**	map. • To create a concept map. • To understand how a concept map can be used to retell stories and information. • To create a collaborative concept map and present this to an audience.	
2 (Summer)	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	Unit: 5.6 (actual unit 5.6) Word Processing with Google Docs	Pupils will know to use word as a processing tool. They will understand how to use it to create, edit and print off a document. This could contain text, images, tables or charts. **Key resources: 2Connect and Google Doc (Word processing)**	•To know what a word processing tool is for. • To add and edit images to a word document. •To know how to use word wrap with images and text. To change the look of text within a document. • To add features to a document to enhance its look and usability. • To use the sharing capabilities in Google Docs. • To use tables within to present information. • To introduce children to templates.	Bulleted Caps Lock Captions Copy and Paste Copy right Font Hyperlink Merge cells Page Orientation Text wrapping Readability Word Processing tool Word art
Year 6 1 (Autumn)	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Unit: 6.1 Coding	Children will know how to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Children will know how to test and debug their program as they go and use logical methods to identify the	•To design a playable game with a timer and a score. • To plan and use selection and variables. • To understand how the launch command works. • To use functions and understand why they are useful. • To understand how functions are created and	Algorithm Command Decomposition Event Action Co-ordinates Execute\Run Execute Flowchart

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	decomposing them into smaller parts		cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem. **Key resources: Tools 2Dos 2Chart Free code gorilla**	called. • To use flowcharts to create and debug code. • To create a simulation of a room in which devices can be controlled. • To understand how user input can be used in a program. • To understand how 2Code can be used to make a text-adventure game.	Debug Simulation Selection Procedure Simulation Properties Launch Command Output Command
2 (Autumn)	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact	Unit: 6.2 Online Safety	Children will know how to demonstrate the safe and respectful use of a range of different technologies and online services. They will be able to identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities. Students will recognise the value in preserving their privacy when online for their own and other people's safety. **Key resources: 2Investigate 2DIY 2DIY3D Free code gorilla**	• To identify benefits and risks of mobile devices broadcasting the location of the user/device. • To identify secure sites by looking for privacy seals of approval. • To identify the benefits and risks of giving personal information. • To review the meaning of a digital footprint. • To have a clear idea of appropriate online behaviour. • To begin to understand how information online can persist. • To understand the importance of balancing game and screen time with other parts of their lives. • To identify the positive and negative influences of technology on health and the environment	Citation Collaborate Communication Copyright Creative Commons Licence Encrypt. Ownership PEGI ratings Phishing Personal information Malware Reliable source Spoof Validity Secure websites Print Screen Digital footprint Location sharing
1 (Spring)	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in	Unit: 6.2 (actual unit 6.4) Blogging	Children will know how to readily apply filters when searching for digital content. They will know how to explain in detail how credible a webpage is and the information it contains. They will know how to compare a range of digital content sources and are able to rate them in terms of content quality and accuracy.	• To identify the purpose of writing a blog. • To identify the features of a successful blog. • To plan the theme and content for a blog. • To understand how to write a blog and	Approval. Vlog Collaborate Blog Blog post Commenting Blogging

	evaluating digital content		Students will know that a blog is a website or webpage that is regularly updated by the author and that it also allows the reader to post comments or opinion based on what is written. **Key resources: 2Blog 2Connect**	a blog post. • To consider the effect upon the audience of changing the visual properties of the blog. • To understand how to contribute to an existing blog. • To understand how and why blog posts are approved by the teacher. • To understand the importance of commenting on blogs	
2 (Spring)	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Unit: 6.3 (actual unit 6.5) Text Adventures	Pupils will know that a text-based adventure is a type of game that uses text rather than graphics to tell the story and that the player normally selects the next move from a series of text-based options. **Key resources: 2Create a Story 2Connect**	•To find out what a text adventure is. • To use 2Connect to plan a story adventure. • To make a story-based adventure using 2Create a Story. • To read and understand given code for a text adventure game. • To debug and improve a text adventure game.	Text-based Adventure Debug\ Debugging Sprite Selection Function Flow of control
1 (Summer)	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Unit 6.4 (actual unit 6.7) Quizzing	Students will establish intended audience; age and reading ability and interests. They will consider the aim of the quiz; is it for fun like a game, or to make sure that the user has learnt something? **Key resources: 2Quiz 2DIY Text Toolkit 2Connect 2Survey and 2Investigate**	•To create a picture-based quiz for young children. • To learn how to use the question types within 2Quiz. • To explore the grammar quizzes. • To make a quiz that requires the player to search a database. • To make a survey and analyse the responses.	Audience Audio Sound Case-Sensitive Cloze Preview Quiz
2 (Summer)	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,	Unit 6.5 (actual unit 6.9) Spreadsheets with Microsoft Excel	Pupils will know that Excel sheets are made up of cells that record different types of data. They will know that those cells are organised in rows and columns, which helps with the organisation and simplification of data. Students will also know that through the use of formulae (both simple and complex), this	• To know what a spreadsheet looks like. • To navigate and enter data into cells. • To introduce some basic data formulae in Excel for percentages, averages and max and min numbers. • To demonstrate how the use of Excel can save time and effort when performing calculations.	Auto fit. Row Horizontal Column Cell Cell Reference Chart Conditional formatting

	systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.		data can be manipulated to generate valuable insights. **Key resources: Microsoft Excel**	• To use a spreadsheet to model a real-life situation. • To demonstrate how Excel can make complex data clear by manipulating the way it is presented. • To create a variety of graphs in Excel. • To apply spreadsheet skills to solving problems.	Data Delimiter a. Formula(e). Formula Bar. Graph Computational Model Text wrapping Range Vertical axis Spreadsheet Autofit