Ormesby Primary School Computing Curriculum Overview with skills and Knowledge

Year Group	Autumn	Spring	Summer	Additional Events
Nursery	**Online Safety**	**Information Technology**	**Computer Science**	**On-site learning** **Off-site learning** **Visitors**
	Rationale Children will develop a greater Understanding of the World through being exposed to and using a range of technology in school, alongside technology used at home. It is crucial that from a very young age they know how to stay safe online. While exploring different digital devices they will be taught what they should and should not do.	**Rationale** Children may or may not have been exposed to technology at home. Children need to be exposed to different examples of software. They need to have time to explore and tinker with devices and software to gain an understanding of basic Information Technology.	**Rationale** Children need to become problem solvers and the beginnings of computational thinking should be embedded within nursery. The children will explore the buttons on floor robots and begin to think about why things happen or how things work.	
	Skills - To give examples of how the internet can be used to communicate - To identify ways to can put information on the internet - To talk about how the internet can be used to find things out - To identify devices that can be used to access the internet	**Skills** - To use a touchscreen game - To explore using a computer, keyboard and mouse in roleplay - To take a photograph and use it in an app - To create a simple digital collage - To present simple data on a digital device - To move and resize images - To explore paint and brush tools - To record sounds and /or voice	**Skills** - To follow simple oral algorithms with support - To spot simple patterns with support - To sequence simple familiar tasks with support - To input a simple sequence of commands to control a robot with support	
	Vocabulary real-life, online, safe, internet, personal information (name), device (IPads, tablet, phone, laptop, computer), trust, belong, share	**Vocabulary** touch screen, mouse, keyboard, computer, tablet, photograph, record, paint, brush, sound	**Vocabulary** patterns, sequence, command, robot, instruction, control	
	Knowledge Children will know that there are different types of digital devices. Children will know they can say 'no, please stop, I'll tell or I'll ask' to someone who asks them to do something that makes them feel sad, embarrassed or upset online or in real life. They will understand the work that they create belongs to them. They can talk about ways to stay safe on digital devices they use at school and at home.	**Knowledge** Children will know how to navigate around a screen using different hardware. They will know how to take a photograph and alter it on the screen. They will know how to create digital images using the tools in a paint app. They will know that they can record sounds using a device.	**Knowledge** Children will understand simple commands and be able to follow these. They will be able to talk through simple instructions for familiar tasks. They will know that robots follow commands they are given. They will understand that different buttons create different outcomes. They will know that they can command a robot to move in different directions. **N.B** - Children will need to support with the above in nursery	

Reception	Information Technology		Information Technology		Computer Science		On-site learning Off-site learning Visitors
	Rationale As children become more aware of technology, and more competent using it, they need to understand the purpose that technology has in their World. The children will broaden their experience of Information Technology through use of a range of different equipment such as iPads, computers and laptops.		**Rationale** Continuing on from the Autumn term objectives children will continue to use Information Technology for a range of purposes. They will begin to select and use technology for a particular purpose with support.		**Rationale** Building on their work in Nursery, children will become more independent in their use of floor robots. They will begin to realise that the robots move in a predictable manner once a set of commands has been inputted. They will use both floor robots and online robots to investigate algorithms.		
	Skills • To record a voice over a picture • To create a simple digital collage • To animate a simple image to speak in role • To create a simple animation to tell a story with more than one character • To record a short film using a camera • To record sounds and/or voices in storytelling and explanations.		**Skills** • To type letters with increasing confidence • To dictate short, clear sentences into a digital device • To present simple data on a digital device • To scan a QR code • To explore a 360 image • To talk about AR objects in the class		**Skills** • To follow simple oral algorithms • To spot simple patterns • To sequence simple familiar tasks • To use a device to target and select options on a screen • To input a simple sequence of commands to control a robot • To make predictions about where a robot will stop		
	Vocabulary Recap vocabulary from nursery Edit, resize, digital collage, images, film, voice		**Vocabulary** Recap vocabulary from nursery QR code, 360 image, AR – Augmented reality,		**Vocabulary** Recap vocabulary from nursery Command, control, oral algorithm, target, options, Bee-bot		
	Knowledge Children will know how to add and alter images. They will know how to take a picture and record a short film. They will understand how to use an app to create a short animation. They will know how to enhance their media using animation and sound.		**Knowledge** Children will know where to find letters on a key board and write simple words. They will know that information technology can be used to present data. They will understand how digital devices can be used enhance learning in the class.		**Knowledge** Children will understand and be able to both follow and give simple instructions. They will know how to program a robot to follow a simple sequence. Children will work know that they can predict the movement of a robot. They will know how to make predictions about the movement and end pint of a robot.		
Digital Literacy and E-Safety strands from Project Evolve	**1 – Self-image & identity** **2 – Online Relationships**	**3 – Online Reputation**	**4 – Online Bullying** **5 - Managing Online Information**	**6 - Health, Well-being & Lifestyle**	**7 - Privacy and Security**	**8 - Copyright and Ownership**	
	Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.						

		Self-image & identity	Online Reputation	Online Bullying	Health, Well-being & Lifestyle	Privacy and Security	Copyright and Ownership	
		• I can recognise, online or offline, that anyone can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset. **Online Relationships** • I can recognise some ways in which the internet can be used to communicate. • I can give examples of how I (might) use technology to communicate with people I know.	• I can identify ways that I can put information on the internet.	• I can describe ways that some people can be unkind online. • I can offer examples of how this can make others feel **Managing Online Information** • I can talk about how to use the internet as a way of finding information online. • I can identify devices I could use to access information on the internet.	• I can identify rules that help keep us safe and healthy in and beyond the home when using technology • I can give some simple examples of these rules	• I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). • I can describe who would be trustworthy to share this information with; I can explain why they are trusted.	• I know that work I create belongs to me. • I can name my work so that others know it belongs to me.	
Year 1		**Information Technology – Technology around us**		**Information Technology – Digital Painting**		**Computer Science Moving a robot**	**Computer Science Programming Animations**	**On-site learning** **Off-site learning** **Visitors** Local PCSO – Online Safety
		Rationale As they begin KS1, children need to be aware of the use of computing outside of their homelife. Many children will have accessed games, some social media and watched TV & films on devices at home, but need an understanding of different hardware types that may be used throughout their school and working life. They need to begin using a mouse and keyboard this will also develop their fine motor skills and can be used alongside phonics to improve their knowledge of letters and letter names.		**Rationale** This unit gives children an awareness that computers can be used for art purposes. It gives the children the ability to create digital images to enhance their publications. Within this unit they can also add words and sentences to enhance their work and build on from their newly acquired keyboards and mouse skills.		**Rationale** This unit moves children on from the basic computational thinking skills they will have developed in EYFS to using floor robots to give commands and predict outcomes.	**Rationale** Children will use the skills developed using the floor robots to move onto using basic code to program a sprite and begin to look at modifying and creating their own programmes. Learners will be introduced to on-screen programming through ScratchJr.	

	Skills		**Skills**		**Skills**	**Skills**	
	• To identify technology • To identify a computer and its main parts • To use a mouse in different ways • To use a keyboard to type on a computer • To use the keyboard to edit text • To create rules for using technology responsibly		• To describe what different freehand tools do • To use the shape tool and the line tools • To make careful choices when painting a digital picture • To explain why I chose the tools I used • To use a computer on my own to paint a picture • To compare painting a picture on a computer and on paper		• To explain what a given command will do • To act out a given word • To combine forwards and backwards commands to make a sequence • To combine four direction commands to make sequences • To plan a simple program • To find more than one solution to a problem	• To choose a command for a given purpose • To show that a series of commands can be joined together • To identify the effect of changing a value • To explain that each sprite has its own instructions • To design the parts of a project • To use my algorithm to create a program	
	Vocabulary technology, computer, mouse, trackpad, keyboard, screen, click, drag, input, device, shift, spacebar, capital letter, full stop, safely, responsibly		**Vocabulary** paint, program, tool, paintbrush, erase, fill, undo, shape, line, colour, brush, prefer, like, dislike		**Vocabulary** forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, plan, algorithm, route, program, ScratchJr, Bee-Bot, sprite, compare, programming, programming area, block, joining, start, background, delete, reset, predict, effect, change, value, block, appropriate, design		
	Knowledge Children will know about different examples of technology in the classroom and be able to explain how they help us. They will be able to name the main parts of a computer and know how to switch it on and log on. They will know how to use a mouse to click and drag, open a program and create pictures. They will know what a keyboard is used for and how to type their name, open work, use the arrow keys to move the cursor, delete letters and save their work to a file.		**Knowledge** The children will know how to use different tools to make marks on the screen, draw lines, make shapes and create pictures. They will have the knowledge to make appropriate choices of shapes, colours and lines to create work in the style of an artist. They will be able to explain why they chose certain tools and colours and be able to evaluate these choices. They know how to independently paint a picture and compare this to a picture made on paper.		**Knowledge** Children will know how to predict and match the outcome of a command and know how to run their own commands. They will know how to follow instructions and give directions to create a sequence. They will be able to explain what their programs should do and know what to do when the sequence is incorrect. They will know how to debug programs and consider different possible solutions to problems.	**Knowledge** Children will know how to find, choose and use various commands (blocks) for a given purpose. They will know how to join blocks, change the value of blocks, and add and remove blocks and sprites. They will know how to use an algorithm to create and run a program and then how to test it works. They will be able to compare different programming tools.	
Digital Literacy and E-Safety strands from Project Evolve	**1 – Self-image & identity** **2 – Online Relationships**	**3 – Online Reputation**	**4 – Online Bullying** **5 - Managing Online Information**	**6 - Health, Well-being & Lifestyle**	**7 - Privacy and Security**	**8 - Copyright and Ownership**	Safer Internet Day Assembly

Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.

Online Relationships	Online Reputation	Online Bullying	Health, Well-being & Lifestyle	Privacy and Security	Copyright and Ownership
• I can recognise that information can stay online and could be copied. • I can describe what information I should not put online without asking a trusted adult first. **Self Image & Identity** • I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. • If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.	• I can give examples of when I should ask permission to do something online and explain why this is important. • I can use the internet with adult support to communicate with people I know (e.g. video call apps or services). • I can explain why it is important to be considerate and kind to people online and to respect their choices. • I can explain why things one person finds funny or sad online may not always be seen in the same way by others.	• I can describe how to behave online in ways that do not upset others and can give examples. **Managing Online Information** • I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching. • I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke. • I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.	• I can explain rules to keep myself safe when using technology both in and beyond the home.	• I can explain how passwords are used to protect information, accounts and devices. • I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names). • I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.	• I can explain why work I create using technology belongs to me. • I can say why it belongs to me (e.g. 'I designed it' or 'I filmed it''). • I can save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content). • I understand that work created by others does not belong to me even if I save a copy.

Year 2	Computing systems and networks – IT around us	Pictograms	Programming A – Robot algorithms	Programming B - Introduction to quizzes	On-site learning Off-site learning Visitors
	Rationale This unit builds on from Technology around us in Year 1. It extends the children's knowledge to think about the use of IT in the wider world, for use in business and commerce.	**Rationale** Children need to be able to use IT to investigate and manipulate data. This unit links to the Year 2 math's objective requiring children to interpret and construct simple pictograms and can be used for the related 'ask-and-answer' objectives.	**Rationale** This unit builds on work using the Bee-bots in Year 1. It develops learners' understanding of instructions in sequences and the use of logical reasoning to predict outcomes.	**Rationale** This unit initially recaps on learning from the Year 1 ScratchJr unit 'Programming B – Programming animations'. It builds upon previous learning to create a program using their own design.	Local PCSO – Online Safety
	Skills	**Skills**	**Skills**	**Skills**	

To recognise the uses and features of information technology. • To identify the uses of information technology in the school • To identify information technology beyond school • To explain how information technology helps us • To explain how to use information technology safely • To explain how information technology helps us • To recognise that choices are made when using information technology	• To recognise that we can count and compare objects using tally charts. • To recognise that objects can be represented as pictures. • To create a pictogram. • To select objects by attribute and make comparisons. • To recognise that people can be described by attributes. • To explain that we can present information using a computer	• To describe a series of instructions as a sequence • To explain what happens when we change the order of instructions • To use logical reasoning to predict the outcome of a program • To explain that programming projects can have code and artwork. • To design an algorithm • To create and debug a program that I have written	• To use my algorithm to create a program • To explain that a sequence of commands has a start. • To explain that a sequence of commands has an outcome. • To create a program using a given design. • To change a given design. • To create a program using my own design • To decide how my project can be improved.	
Vocabulary Information technology (IT), computer, barcode, scanner/scan	**Vocabulary** More than, less than, most, least, organise, data, object, tally chart, votes, total, enter, compare, count, pictogram, explain, more common, least common, attribute, group, same, different most popular, least popular, conclusion, block diagram, sharing, data	**Vocabulary** Instruction, sequence, clear, unambiguous, algorithm, program, order, algorithm, commands, prediction, artwork, design, route, mat, debugging	**Vocabulary** Sequence, command, program, run, start, outcome, predict, blocks, sprite, algorithm, design, actions, project, design, modify, change, build, match, compare, debug, features, evaluate	
Knowledge Children will know how different technologies can be used and be able to identify the different features of information technology. They will be able to identify examples of IT both within and outside school and know how IT improves the world. They will know how to stay safe when using IT and the importance of using IT responsibly.	**Knowledge** Children will begin to understand what the term data means and how data can be collected in the form of a tally chart. They will learn the term 'attribute' and use this to help them organise data. They will know how to present data in the form of pictograms and block diagrams. Learners will use the data presented to answer questions.	**Knowledge** Children will know how given commands in different orders can affect the outcome. They will know the importance of design in the programming process. They will know how to design algorithms to meet a goal, predict the outcome and then test those algorithms as programs and debug them.	**Knowledge** Children will know how to use programming blocks to use, modify, and create programs. They will know that sequences of commands have an outcome, and make predictions based on their learning. They will know how to use and modify designs to create their own quiz. They will know how to evaluate their work and make improvements to their programming projects.	

Digital Literacy and E-Safety strands from Project Evolve	1 – Self-image & identity 2 – Online Relationships	3 – Online Reputation	4 – Online Bullying 5 - Managing Online Information	6 - Health, Well-being & Lifestyle	7 - Privacy and Security	8 - Copyright and Ownership	
	Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.						
	1 – Self-image & identity • I can explain how other people may look and act differently online and offline. • I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help. **2 – Online Relationships** • I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country). • I can explain who I should ask before sharing things about myself or others online. • I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I	**3 – Online Reputation** • I can explain how information put online about someone can last for a long time. • I can describe how anyone's online information could be seen by others. • I know who to talk to if something has been put online without consent or if it is incorrect.	**4 – Online Bullying** • I can explain what bullying is, how people may bully others and how bullying can make someone feel. • I can explain why anyone who experiences bullying is not to blame • I can talk about how anyone experiencing bullying can get help. **5 - Managing Online Information** • I can use simple keywords in search engines • I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). • I can explain what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).	**6 - Health, Well-being & Lifestyle** • I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment. • I can say how those rules / guides can help anyone accessing online technologies	**7 - Privacy and Security** • I can explain how passwords can be used to protect information, accounts and devices. • I can explain and give examples of what is meant by 'private' and 'keeping things private'. • I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords). • I can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).	**8 - Copyright and Ownership** • I can recognise that content on the internet may belong to other people. • I can describe why other people's work belongs to them	Safer Internet Day Assembly and Activities Spring 1

am not sure. • I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. • I can identify who can help me if something happens online without my consent. I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online. • I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online	• I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real' • I can explain why some information I find online may not be real or true.

Year 3	**Computer Systems and Networks**	**Creating Media – Desktop Publishing**	**Programming A – Sequencing Sounds**	**Programming B – Events and Actions in Programs**	**On-site learning** **Off-site learning** **Visitors** Local PCSO – Online Safety
	Rationale This unit progresses learners' knowledge and understanding of technology by focusing on digital and non-digital devices, and introducing the concept of computers connected together as a network. Following this unit, learners will explore the internet as a network of networks.	**Rationale** As children move into KS2 they will need to use desktop publishing software to present their knowledge and understanding. This unit gives them a better understanding of how to navigate the tools available to add text and images to documents and how edit and improve their work.	**Rationale** This unit explores the concept of sequencing in programming through Scratch. This builds on children's work using the floor robots and ScratchJnr in KS1. It introduces them to the programming environment and focuses on all aspects of sequences whilst making sure that knowledge is built in a structured manner.	**Rationale** This unit explores the links between events and actions, whilst consolidating prior learning relating to sequencing. Children will progress onto developing their own programs with more detail and identifying bugs.	

	Skills	Skills	Skills	Skills	
	Skills • To explain how digital devices function • To identify input and output devices • To recognise how digital devices can change the way we work • To explain how a computer network can be used to share information • To explore how digital devices can be connected • To recognise the physical components of a network	**Skills** • To recognise how text and images convey information • To recognise that text and layout can be edited • To choose appropriate page settings • To add content to a desktop publishing publication • To consider how different layouts can suit different purposes • To consider the benefits of desktop publishing	**Skills** • To explore a new programming environment • To identify that commands have an outcome • To explain that a program has a start • To recognise that a sequence of commands can have an order • To change the appearance of my project • To create a project from a task description	**Skills** • To explain how a sprite moves in an existing project • To create a program to move a sprite in four directions • To adapt a program to a new context • To develop my program by adding features • To identify and fix bugs in a program • To design and create a maze-based challenge	
	Vocabulary Digital device, input, output, process, process, pictogram, connection, network, network switch, server, wireless access point,	**Vocabulary** Text, images, advantages, disadvantages, communicate, font, font style, communicate, template, landscape, portrait, orientation, placeholder, layout, content, desktop publishing, copy, paste, purpose, benefits	**Vocabulary** Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, code, run the code, order, note, chord, stage, costume, backdrop, design, algorithm, bug, debug	**Vocabulary** Motion, event, sprite, algorithm, logic, move, resize, algorithm, extension block, pen up, set up, pen, design, event, action, debugging, errors, design, code, test	
	Knowledge Children will know how digital devices accept inputs and produce outputs and be able to classify these. They will know the different ways in which digital devices can be useful and be able to compare these to non-digital tools. They will understand how information can be transferred between devices and know the role of the different parts of a network.	**Knowledge** The children will know the advantages and disadvantages of media formats used to communicate messages. They will know how to make careful choices of font, images and sizing dependent upon purpose. They will know how to add to, edit, cut, copy and paste content and change the layout of pages. They will know how desktop publishing is used in the wider world and consider the benefits of using desktop publishing applications.	**Knowledge** The children will know how to use objects and commands in the form of blocks. They will know how to use a sequence of commands to create a program following a design.	**Knowledge** Children will know the relationship between an event and an action. They will understand how to choose a suitable sprite and program it to move. They will know how to adapt and develop a program and understand the debugging process.	

E-Safety strands from Project Evolve	1 – Self-image & identity 2 – Online Relationships	3 – Online Reputation	4 – Online Bullying 5 - Managing Online Information	6 - Health, Well-being & Lifestyle	7 - Privacy and Security	8 - Copyright and Ownership	
	Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.						
	1 – Self-image & identity • I can explain what is meant by the term 'identity'. • I can explain how people can represent themselves in different ways online. • I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why. **2 – Online Relationships** • I can describe ways people who have similar likes and interests can get together online. • I can explain what it means to 'know someone' online and why this might be different from knowing someone offline. • I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust	**3 – Online Reputation** • I can explain how to search for information about others online • I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. • I can explain who someone can ask if they are unsure about putting something online.	**4 – Online Bullying** • I can describe appropriate ways to behave towards other people online and why this is important. • I can give examples of how bullying behaviour could appear online and how someone can get support. **5 - Managing Online Information** • I can demonstrate how to use key phrases in search engines to gather accurate information online. • I can explain what autocomplete is and how to choose the best suggestion. • I can explain how the internet can be used to sell and buy things • I can explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how	**6 - Health, Well-being & Lifestyle** • I can explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged. • I can explain why online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable.	**7 - Privacy and Security** • I can describe simple strategies for creating and keeping passwords private. • I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult. • I can describe how connected devices can collect and share anyone's information with others.	**8 - Copyright and Ownership** • I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.	Safer Internet Day Assembly and Activities Spring 1

	online including what information and content they are trusted with. • I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.		and where they might be shared online, e.g. in videos, memes, posts, news stories etc.			

Year 4	**Computing Systems and Networks – The Internet**	**Data and Information – Data Logging**	**Programming A – Repetition in Shapes**	**Programming B – Repetition in Games**	
	Rationale This unit progresses students' knowledge and understanding of networks in Year 3 so that they appreciate the internet as a network of networks and that the World Wide Web is part of the internet. Following this unit, they will continue to develop their knowledge and understanding of computing systems and online collaborative working.	**Rationale** Following on from the data unit in Year 2, the children investigate how data can be collected over time to answer questions. Specifically, it builds on the concept of answering questions and introduces the idea of automatic data collection. Children are introduced to data in tables and graphs, knowledge they will build on in the Year 5 unit (flat file databases).	**Rationale** This unit progresses from the sequence of commands in a program to using count-controlled loops. Pupils will create algorithms and then implement those algorithms as code.	**Rationale** This unit follows on form and builds on the work on repetition and count-controlled loops in Programming A.	
	Skills • To describe how networks physically connect to other networks • To recognise how networked devices make up the internet • To outline how websites can be shared via the World Wide Web (WWW) • To describe how content can be added and accessed on the World Wide Web (WWW) • To recognise how the content of the WWW is created by people • To evaluate the consequences of unreliable content	**Skills** • To explain that data gathered over time can be used to answer questions • To use a digital device to collect data automatically • To explain that a data logger collects 'data points' from sensors over time • To recognise how a computer can help us analyse data • To identify the data needed to answer questions • To use data from sensors to answer questions	**Skills** • To identify that accuracy in programming is important • To create a program in a text-based language • To explain what 'repeat' means • To modify a count-controlled loop to produce a given outcome • To decompose a task into small steps • To create a program that uses count-controlled loops to produce a given outcome	**Skills** • To develop the use of count-controlled loops in a different programming environment • To explain that in programming there are infinite loops and count controlled loops • To develop a design that includes two or more loops which run at the same time • To modify an infinite loop in a given program • To design a project that includes repetition • To create a project that includes repetition	**On-site learning** **Off-site learning** **Visitors** Local PCSO – Online Safety

Vocabulary	**Vocabulary**	**Vocabulary**	**Vocabulary**
Internet, network, router, network security, network switch, server, wireless access point, website, web page, web address, routing, browser, World Wide Web, content, website, links, files, use, content, download, sharing, ownership, permission, Information, sharing, accurate, honest, content, adverts	Data, table (layout), input device, sensor, data logger, logging, data point, interval, analyse, data set, import, export, data, data logger, logged, collection, review, conclusion	Program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, value, decompose, procedure	Scratch, programming, sprite, blocks, code, loop, repeat, value, block, repeat, forever, infinite loop, count-controlled loop, costume, repetition, forever, infinite loop, count-controlled loop, animate, costume, event block, duplicate, repeat, forever, modify, design, sprite, algorithm, duplicate, debug, refine, evaluate
Knowledge	**Knowledge**	**Knowledge**	**Knowledge**
The children will understand how networks connect to form the internet and know how to keep a network safe. They will use this understanding to help explain how the internet lets us view the World Wide Web which contains websites and web pages which can be accessed on a variety of devices. They will understand how to analyse a website and know what can be added to a website and how to create their own content online. They will explore who owns the content on the World Wide Web and investigate what they can and cannot do with the content on websites. They will know that not everything they see on the internet is true, honest, or accurate and that web searches can return ambiguous (and sometimes misleading) results. Finally, children will understand how quickly information can spread beyond their control.	Children will know what data can be collected, how it is collected and that some data can be collected over time. They will also think about questions that can and can't be answered using available data, and reflect on the importance of collecting the right data to answer questions. They will know that computers use sensors to capture data from the physical world and that sensors can be connected to data loggers, which can automatically collect data while not attached to a computer. Children will know how data loggers work and be able to use them to collect data, download this to a computer and analyse a data file. They will know how to answer a question by planning a data logging process to collect data which can then be reviewed. They will know the benefits of using a data logger.	Children will know the basic logo commands and will use their knowledge of them to read and write code and create algorithms. They will know how to debug their code by finding and fixing any errors that they spot. They will understand that many codes are made up of repeated patterns by repeating commands. They will know how to use count-controlled loops to create regular shapes and make predictions based on their knowledge. They will know how to decompose a code and how to modify existing code by changing values They will know how to evaluate their programs against an original brief.	Children will know how to create shapes using count-controlled loops using Scratch. They know how to read code, modify code and create new code predicting what the output will be once the code is run. They know the difference between infinite loops and count-controlled loops and which might be more suitable for different purposes. They will know how to create and alter designs and algorithms, fixing any mistakes as they build and then evaluate their work, considering how effectively they used repetition in their code.	

Year 4 E-Safety strands from Project Evolve	**1 – Self-image & identity** **2 – Online Relationships**	**3 – Online Reputation**	**4 – Online Bullying** **5 - Managing Online Information**	**6 - Health, Well-being & Lifestyle**	**7 - Privacy and Security**	**8 - Copyright and Ownership**	
	Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.						
	1 – Self-image & identity • I can explain how my online identity can be different to my offline identity. • I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. • I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. **2 – Online Relationships** I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) I can give examples of how to be respectful	**3 – Online Reputation** • I can describe how to find out information about others by searching online. • I can explain ways that some of the information about anyone online could have been created, copied or shared by others.	**4 – Online Bullying** • I can recognise when someone is upset, hurt or angry online. • I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). • I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation). **5 - Managing Online Information** • I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. • I can describe how to search for information within a wide group of	**6 - Health, Well-being & Lifestyle** • I can explain how using technology can be a distraction from other things, in both a positive and negative way. • I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time.	**7 - Privacy and Security** • I can describe strategies for keeping personal information private, depending on context. • I can explain that internet use is never fully private and is monitored, e.g. adult supervision. • I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. • I know what the digital age of consent is and the impact this has on online services asking for consent.	**8 - Copyright and Ownership** • When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. • I can give some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images.	Safer Internet Day Assembly and Activities Spring 1

	to others online and describe how to recognise healthy and unhealthy online behaviours. I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs.	technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites). • I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. • I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.			
Year 5	**Computer Systems and Networks – Systems and Searching**	**Creating Media – Video Production**	**Programming B – Selection in quizzes**	**Data and Information- Flat-file Databases**	
	Rationale Following on from their work on Networks in Year 4, children will develop their understanding of computer systems and how information is transferred between devices and small-scale and large-scale systems and devices.	**Rationale** Video production is an important skill for children to develop in order to be able to create media to present their knowledge and show their understanding. This unit will allow children to develop the skills required to plan, record, edit, and share a video.	**Rationale** This unit builds on children's prior experience of programming from Year 4 using block-based construction (e.g. Scratch) to understand the concepts of 'sequence' and 'repetition.'	**Rationale** Being able to use a database is an essential skill for the wider world. It is a useful skill for children to use a database to organise and order data to answer questions and solve problems.	**On-site learning** **Off-site learning** **Visitors**
	Skills • To explain that computers can be connected together to form systems • To recognise the role of computer systems in our lives • To experiment with search engines • To describe how search engines select results • To explain how search results are ranked • To recognise why the order of results is important, and to whom	**Skills** • To explain what makes a video effective • To identify digital devices that can record video • To capture video using a range of techniques • To create a storyboard • To identify that video can be improved through reshooting and editing • To consider the impact of the choices made when making and sharing a video	**Skills** • To explain how selection is used in computer programs • To relate that a conditional statement connects a condition to an outcome • To explain how selection directs the flow of a program	**Skills** • To use a form to record information • To compare paper and computer-based databases • To outline how you can answer questions by grouping and then sorting data • To explain that tools	Safer Internet Day Assembly and Activities Spring 1

			• To design a program which uses selection • To create a program which uses selection • To evaluate my program	can be used to select specific data • To explain that computer programs can be used to compare data visually • To use a real-world database to answer questions	
	Vocabulary System, connection, digital, input, process, output, protocol, address, packet, chat, explore, slide deck, reuse, remix, collaboration	**Vocabulary** Video, audio, recording, storyboard, script, soundtrack, dialogue, capture, zoom, storage, digital, tape, audio, AV (audiovisual), save, videographer, video techniques: Zoom, pan, tilt, angle, lighting, setting, YouTuber, content, light, audio/sound, camera angle, colour, Export, computer, Microsoft Movie Maker, split, trim/clip, edit, titles, end credits, timeline, transitions, soundtrack, content, retake/reshoot (choose agreed language), special effects, title screen, end credits, export, constructive feedback	**Vocabulary** Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, debug, task, design , input, implement, design, test, run, test, setup, share, evaluate, constructive	**Vocabulary** Database, data, information, record, field, sort, order, group, search, value, criteria, chart, axis, compare, filter, graph, chart, presentation	
	Knowledge They will know how devices and processes are connected to perform tasks and understand how computer systems can help them. They will know how to use an address bar and a range of search engines, how to refine their searches when needed and that searches do not always return the results that someone is looking for. They will understand how search engines and websites interact via web-crawlers. They will know that a webpage's content can influence where it is ranked in search results and that creators can optimise their sites for searching.	**Knowledge** Children will know that video is a media format and be able to analyse and compare examples of videos. They will be aware of a variety of filming techniques and know how to evaluate these to offer feedback on others' work. They will know how to plan a video by creating a storyboard to describe each scene, including information about a script, camera angles, and filming techniques. They will now how to film different scenes and import their content to video editing software to edit and enhance their video. They will know how to export their finished video and evaluate the effectiveness of their edits and consider how they could share their video with others.	**Knowledge** Children will know how selection is used in computer programs and how conditions are used in selection. They will know how to identify and modify conditions. They will know how to create a program that uses different outcomes. They will know how to explain and design the flow of programs. They will know how to use a design format to outline a project and the outcome of user input. They will know how to implement their algorithm and share it with others. They will know how to test their program to identify ways it could be improved and how it could be extended further.	**Knowledge** Children will know how computer-based databases relate to paper records and be able to compare the two. They will know how data can be recorded, viewed and ordered in a database. They will know that records can be searched, grouped and sorted to answer questions. They will know how to create charts from their data and how they can be used to compare data to answer questions.	

Year 5 E-Safety strands from Project Evolve	1 – Self-image & identity 2 – Online Relationships	3 – Online Reputation	4 – Online Bullying 5 – Managing Online Information	6 - Health, Well-being & Lifestyle	7 - Privacy and Security	8 - Copyright and Ownership	
	Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.						
	1 – Self-image & identity • I can explain how identity online can be copied, modified or altered. • I can demonstrate how to make responsible choices about having an online identity, depending on context. **2 – Online Relationships** • I can give examples of technology-specific forms of communication. • I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault. • I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make	**3 – Online Reputation** • I can search for information about an individual online and summarise the information found. • I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect.	**4 – Online Bullying** • I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences. • I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying. • I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult. • I can identify a range of ways to report concerns and access support both in school and at home about online bullying. • I can explain how to block abusive users. • I can describe the helpline services which can help people experiencing bullying, and how to access them. **5 - Managing Online**	**6 - Health, Well-being & Lifestyle** • I can describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. • I can describe some strategies, tips or advice to promote health and wellbeing with regards to technology. • I recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals. • I can explain how and why some apps and games may request or take payment for additional	**7 - Privacy and Security** • I can explain what a strong password is and demonstrate how to create one. • I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. • I can explain what app permissions are and can give some examples.	**8 - Copyright and Ownership** • I can assess and justify when it is acceptable to use the work of others • I can give examples of content that is permitted to be reused and know how this content can be found online.	

		Information	content and			
	positive contributions.	**Information** I can explain the benefits and limitations of using different types of search technologies. I can explain how some technology can limit the information I am presented with. I can explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be 'sceptical'. I can evaluate digital content and can explain how to make choices about what is trustworthy. I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence. (Please see EVOLVE website for full list of objectives)	content and explain the importance of seeking permission from a trusted adult before purchasing.			
Year 6		<u>**Computing Systems and Networks - Communication and Collaboration**</u>	<u>**Webpage Creation**</u>	<u>**Programming A – Variables in games**</u>	<u>**Programming B – Sensing Movement**</u>	**On-site learning** **Off-site learning** **Visitors** Local PCSO – Online Safety Links to local computer coding businesses for children to see it in the real life? See STEM ambassadors?
		<u>Rationale</u> Following on from their work on systems in Year 5, children will learn how data is transferred over the internet. They will look at how the internet facilitates online communication and collaboration and how to communicate responsibly which is an essential skill in this increasingly digital world.	<u>Rationale</u> Most people, companies and schools have their own webpage. It is important that we teach our children how to create one both safely and successfully in preparation for the wider world. This unit also progresses student's knowledge of previously covered topics - digital painting and writing and desktop publishing.	<u>Rationale</u> This unit continues the progress made using Scratch throughout KS1 and KS2. The childem investigate variables in games which can be related to real-world examples of values that can be set and/or changed.	<u>Rationale</u> This unit is the final KS2 programming unit and brings together elements of all the four programming constructs: sequence, repetition, selection and variables. It offers pupils the opportunity to use all of these constructs in a different, but still familiar environment.	

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	Skills • To explain the importance of internet addresses • To recognise how data is transferred across the internet • To explain how sharing information online can help people to work together • To evaluate different ways of working together online • To recognise how we communicate using technology • To evaluate different methods of online communication	**Skills** • To review an existing website and consider its structure • To plan the features of a web page • To consider the ownership and use of images (copyright) • To recognise the need to preview pages • To outline the need for a navigation path • To recognise the implications of linking to content owned by other people	**Skills** • To define a 'variable' as something that is changeable • To explain why a variable is used in a program • To choose how to improve a game by using variables • To design a project that builds on a given example • To use my design to create a project • To evaluate my project	**Skills** • To create a program to run on a controllable device • To explain that selection can control the flow of a program • To update a variable with a user input • To use a conditional statement to compare a variable to a value • To design a project that uses inputs and outputs on a controllable device • To develop a program to use inputs and outputs on a controllable device	
	Vocabulary Search, search engine, Google, Bing, Yahoo!, Swisscows, DuckDuckGo, refine, index, crawler, bot, search engine, ranking, optimisation, links, content creator, selection, communication, internet, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, YouTube, Twitter, BBC Newsround	**Vocabulary** Website, web page, browser, media, Hypertext Markup Language (HTML), logo, layout, header, media, purpose, copyright, fair use, home page, preview, evaluate, device, Google Sites, breadcrumb trail, navigation, hyperlink, subpage, hyperlink, implication, external link, embed	**Vocabulary** Variable, change, name, value, set, design, event, algorithm, code, task, algorithm, artwork, program, project, code, test, debug, improve, evaluate, share	**Vocabulary** Micro:bit, MakeCode, input, process, output, flashing, USB, selection, condition, if then else, variable, random, input, selection, condition, variable, sensing, accelerometer, compass, direction, navigation, design, task, algorithm, step counter, plan, create, code, test, debug	
	Knowledge Children will know what effective communication is and the importance of agreed protocols. They will know how data is transferred over the internet to support people working together when they are not in the same location. They will understand of the term 'communication', exploring different methods before they considering internet-based communication in more detail. Children will know which methods of communication suit particular purposes.	**Knowledge** Children will know that websites are created by using HTML code. They will know how to carefully plan their own web page on paper, paying close attention to navigation paths and how to create this in Google Sites. They will know what is meant by 'fair use' and 'copyright' and will understand why they should only use copyright-free images. They will know their web page will appear differently on different devices and suggest or make edits to improve the user experience on	**Knowledge** Children will know that a variable is changeable information which can be in the form of letters or numbers. They will know how to design and make their own project that includes variables. They will know that variables are used in programs, and that they can only hold a	**Knowledge** Children will know the micro:bit is an input, process, output device that can be programmed. They will know how to apply their knowledge of programming to a new environment. They will know how to use conditions, conditional statements, variables	

			each device. They will know how to use hyperlinks to link webpages together and how to create hyperlinks on their own websites that link to other people's work.	single value at a time. They will know how to add, name, change and update variables. They will know how to make predictions about variables, use variables to enhance programs and experiment with different values in variables. They will know how to identify variables in an unfamiliar project and learn the importance of naming variables. They will know how to evaluate and improve projects.	and the flow of a programs using selection. They will know how to choose variables, design an algorithm and the program flow for a project. They will know how to create a program based on their design and how to test it to find and fix bugs.	
Year 6 E-Safety strands from Project Evolve	**1 – Self-image & identity** **2 – Online Relationships**	**3 – Online Reputation**	**4 – Online Bullying** **5 - Managing Online Information**	**6 - Health, Well-being & Lifestyle**	**7 - Privacy and Security**	**8 - Copyright and Ownership**
	Digital Literacy and E-safety Rationale – Being digitally literate and understanding how to stay safe online is essential and therefore will be taught and revisited throughout the year in order to ensure children are capable and confident to be part of a digital world. By ensuring there is a constant dialogue about e-safety and having a whole school approach looking at one or two strands each term, children will be more tuned in to staying safe online. Each half term the new topic can be introduced via assembly to kick start the topic and begin the dialogue to be continued. Some strands lend themselves to stand alone lessons, others could be split up into 10 minute introduction activities at the beginning of ICT lessons and some link to PSHE, so could be part of circle time. NB – not all the objectives may be taught. Pre-assessment knowledge maps will inform the teacher as to which objectives are pertinent to the current cohort.					
	1 – Self-image & identity • I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. • I can describe issues online that could make anyone feel sad, worried,	**3 – Online Reputation** • I can explain the ways in which anyone can develop a positive online reputation. • I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.	**4 – Online Bullying** • I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me. • I can explain how someone would report online bullying in different contexts. **5 - Managing Online Information** • I can explain how search engines work and how results are selected and ranked.	**6 - Health, Well-being & Lifestyle** • I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. • I recognise and can discuss the pressures that technology can place on someone and how / when they	**7 - Privacy and Security** • I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). • I can explain what to do if a password is shared, lost or stolen. • I can describe how and why people should keep their software and apps up to date, e.g. auto updates. • I can describe simple ways to increase privacy on apps and services that provide	**8 - Copyright and Ownership** • I can demonstrate the use of search tools to find and access online content which can be reused by others. • I can demonstrate how to make references to and acknowledge sources I have used from the internet.

	uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. • I can explain the importance of asking until I get the help needed. **2 – Online Relationships** •I can explain how sharing something online may have an impact either positively or negatively •I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not. •I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs. •I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.		• I can explain how to use search technologies effectively. • I can explain how to use search technologies effectively. • I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.	could manage this. • I can recognise features of persuasive design and how they are used to keep users engaged (current and future use). • I can assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).	privacy settings. • I can describe simple ways to increase privacy on apps and services that provide privacy settings. • I know that online services have terms and conditions that govern their use.	

British Values in Computing

Democracy	In computing, the children know that they have the right to be safe online. They are taught online safety throughout the year. As part of this they learn the importance of keeping passwords and personal information safe. The school council can use computing resources to produce posters and documents to teach how to successfully navigate the voting system within the school. The children know and understand that they are part of the democracy of the internet and all have an impact on the way the internet exists.
Rule of Law	Children understand the use of rules while using computers and the internet. They understand these rules are there to keep themselves and others safe and to ensure the internet is a safe, enjoyable and engaging place to be. They can demonstrate how to be safe online, using search engines safely and demonstrating how to follow school rules regarding E-safety. In Computer Science, children learn about algorithms, programming and control which helps children to follow simple rules and demonstrates the importance of following simple instructions.
Mutual Respect	Children appreciate and understand the views of others, their right to challenge, question and discuss opinions and views and to do this in a respectful and thoughtful way. Children understand that through the internet, they are connected to a wide range of views and they are learning to respect the views of others.
Individual Liberty	Children understand how to use their right to freedom of speech in a respectful and thoughtful way and to be considerate of how their speech can affect others both verbally and in written form. They understand the freedom the internet offers in discovering information and connecting us with the wider world. They can navigate and use computers independently, researching projects across the whole curriculum
Tolerance	Children are able to connect to people from all around the world. They understand that people from different communities, cultures, faiths and beliefs. Children use computing to access cultural diversity, through research projects, E-safety and