Computing - Curriculum

Information Technology	Computer Science	Digital Literacy (E4S)
Word Processing/ Typing	Computational Thinking	Online content and critical thinking
Data Handling	Coding and Programming	Self-image, mental Health and well being
Animation	Computer Networks	Staying safe online
Video Creation		Online reputation
Photography and Digital Art		Online relationships and cyberbullying
Sound		

At Billingshurst Primary Academy, the teaching of Computing reflects our school values: **Ambition, Belonging and Courage** and is embedded across the curriculum.
In most cases, **Information Technology** skills are covered through project-based learning rather than being taught discreetly. This gives children the opportunity to develop these skills through our broad, balanced and exciting curriculum and allows skills and knowledge to be progressive and built upon each year.
Computer Science skills are taught more explicitly and time is spent using a variety of equipment and different devices, which allows children to explore, develop and reflect on these skills.
Digital Literacy skills are essential and are reflected upon whenever technology is used throughout the year. These skills and knowledge will also be covered in Lifeskills and every child will actively take part in Safer Internet Day each year.
Prior to beginning a new project, children will have the opportunity to explore new software as part of a "**Tinkering Session**". They are given the opportunity to explore, experiment and familiarise themselves with the different elements and tools of new software before applying them in a more focused approach. This session allows teachers to carry out informative assessments to assess each child's level of skill prior to beginning a project.
Following this session, the Computing curriculum is then delivered using the **D.A.R.E.S Approach (Design, Apply, Refine, Evaluate, Share).** When using new software/apps, this approach ensures that children have the opportunity to explore, plan, create and reflect on their use of the technology and software. It encourages children to be critical thinkers, problem solvers and computational thinkers.
D - Design: Children start by discussing the desired outcome for their project and are given time to tinker with the software to explore, experiment and familiarise themselves before planning what they will do to achieve their outcome.
A - Apply: Children are given the opportunity to create, make and produce content using the app or software explored in the design lesson(s)
R - Refine: Children spend time considering ways to modify and improve their projects to get the best results possible. They should also consider their audience and purpose related to the design brief.
E - Evaluate: Upon completing their desired outcome, children are given the opportunity to reflect and consider how effectively they have achieved their goal.
S - Share: Children are given the opportunity to publish and exhibit their work to the world.

Computing - Curriculum

EYFS – Information Technology		
National Curriculum Objective	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Play on a touch screen game and use computers/keyboards/mouse in role play Type letters with increasing confidence using a keyboard and tablet Dictate short, clear sentences into a digital device	Role play technology Microphone voice recorders BBC Dance Mat
Data Handling	Identify a chart Sort physical objects, take a picture and discuss what I have done	Pic Collage 2Simple
Animation	Animate a simple image to speak in role Create a simple animation to tell a story including more than one character	Puppetpals ChatterPix Kids I can animate
Video Creation	Know the difference between a photography and video Record a short film using the camera Record and play a film Watch films back	Camera iPad Digital cameras
Photography and Digital Art	Take a photograph Take a photograph and use it in an app Use a painting app and explore the paint and brush tools	iPad Camera and Markup Pic Collage Paint Digital cameras
Sound	Record sounds with different resources Find ways to change your voice (tube, tin can, shouting to create an echo) Record sounds/voices in storytelling and explanations	Voice Memos Microphone Voice Recorder Voice apps

Computing - Curriculum

EYFS – Computer Science		
National Curriculum Objective	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Computational Thinking	Follow simple oral instructions Spot simple patterns, such as similarities and differences Sequence simple familiar tasks	Bee Bot Pro-Bot Daisy the Dinosaur App
Coding and Programming	Use a mouse, touch screen or appropriate access device to target and select options on screen Input a simple sequence of commands to control a digital device with support	Bee Bot Pro-Bot Kodable

Computing - Curriculum

EYFS – Digital Literacy/E-Safety - Education for a Connected World	
National Curriculum Objective	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.
Strand	**Skills/Knowledge**
Online relationships	Recognise some ways in which the internet can be used to communicate Give examples of how I could use technology to communicate with people I know
Identity and online reputation	Identify ways that I can put information on the internet Recognise that I can say 'no' / 'please stop' / 'I'll tell an adult' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset Explain how this could be either in real life or online.
Online bullying	Describe ways that some people can be unkind online Offer examples of how this can make others feel.
Managing online information	Talk about how I can use the internet to find things out Identify devices I could use to access information on the internet Give simple examples of how to find information (e.g. search engine, voice activated searching)
Health, wellbeing and lifestyle	Identify rules that help keep us safe and healthy in and beyond the home when using technology Give some simple examples.
Privacy and security	Identify some simple examples of my personal information (e.g. name, address, birthday, age, location) Describe the people I can trust and can share this with; I can explain why I can trust them.

Computing - Curriculum

Year 1 – Information Technology		
National Curriculum Objective	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Confidently type words quickly and correctly on a digital device Use the spacebar to make space and delete to delete letters/words Make a new line using enter/return Dictate into a digital device more accurately and with punctuation	BBC Dance Mat Typing Google Docs Notes Microphone voice recorders
Data Handling	Sort images or text into two or more categories on a digital device Collect data on a topic Create a tally chart and pictogram	Pic Collage 2Simple
Animation	Create an animation to tell a story with more than one scene Add my own pictures to my story animation	Puppetpals ChatterPix Kids I can animate
Video Creation	Record a film using a camera/camera app Select images and record a voiceover Highlight and zoom into images as I record on an iPad	Camera iMovie Shadow Puppets Edu Digital cameras
Photography and Digital Art	Edit a photo with simple tools Use a paint/drawing app to create a digital image Begin to cut out an image to layer on another image	iPad Camera and Markup Notes Pic Collage Paint Snipping tool Digital cameras
Sound	Create a sequence of sounds (instruments, apps/software) Explore short and long sounds Record my voice and add different effects	Voice Memos Microphone Voice Recorder

Computing - Curriculum

Year 1 – Computer Science

National Curriculum Objective	Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Co2/1.2 create and debug simple programs Co2/1.3 use logical reasoning to predict the behaviour of simple programs	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Computational Thinking	• I understand what algorithms are • I can write simple algorithms • I understand the sequence of algorithms is important • I can debug simple algorithms (PROBLEM SOLVE)	Bee Bot Pro-Bot Kodable Rugged Robot Tactile Coder iPad coding apps Code.org (Course A)
Coding and Programming	• I can create a simple program on a digital device e.g. Bee Bot/Pro-Bot • I can use sequence in programs • I can locate and fix bugs in my program (PROBLEM SOLVE)	Bee Bot Pro-Bot Kodable Rugged Robot Tactile Coder iPad coding apps Code.org (Course A)

Computing - Curriculum

Year 1 – Digital Literacy (Lifeskills)	
National Curriculum Objective	Co2/1.5 recognise common uses of information technology beyond school Co2/1.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies
Strand	**Skills/Knowledge**
Online content and critical thinking	Know how to safely access information online Use key terms when describing actions and information – true, real, believe, made up etc.
Self-image, mental health and well being	Understand the different ways we can go 'online' Consider why other people go online Identify what is positive about self and others
Staying safe online	Identify what information is personal Consider what information should not be shared online
Online reputation	Understand that the information I put online leaves a digital footprint Understand that my digital footprint can be big or small, helpful or hurtful, depending on I manage it
Online relationships and cyberbullying	Use the internet with adult support to communicate with people I know

Computing - Curriculum

Year 2 – Information Technology

National Curriculum Objective	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Use the space bar only once between words and use touch to navigate to words letter to edit Copy and paste images and text Use caps locks for capital letters Add images alongside text in a word-processed document Dictate longer passages into a digital device with accurate punctuation	BBC Dance Mat Typing Google Docs Google Slides Microphone voice recorders
Data Handling	Sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software Orally record myself explaining what the data shows me Create a branching database using questions	Google Sheets Plickers Pic Collage
Animation	Create a simple stop motion animation Explain how an animation/flip book works	Puppetpals ChatterPix Kids I can animate
Video Creation	Use tools to add effects to a video Begin to use green screen techniques with support	iMovie Doink Greenscreen Shadow Puppets Edu Digital cameras
Photography and Digital Art	Edit a photo (crop, filters, mark up etc.) Select and use tools to create digital imagery - controlling the pen/brush and using the fill tool Cut images with accuracy to layer on other images.	iPad Camera and Markup Notes Pic Collage Paint Photobooth Digital cameras
Sound	Record my own sound effects and use them to retell a story	Voice Memos Microphone Voice Recorder

Computing - Curriculum

Year 2 – Computer Science

National Curriculum Objective	Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Co2/1.2 create and debug simple programs Co2/1.3 use logical reasoning to predict the behaviour of simple programs	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Computational Thinking	Write algorithms for everyday tasks Use logical reasoning to predict the outcome of algorithms Understand decomposition is breaking objects/processes down Debug algorithms	Bee Bot Scratch Kodable Code.org (Course B) Code club Rugged Robot Tactile Coder iPad coding apps
Coding and Programming	Understand programs follow precise instructions Create programs using different digital devices E.g. Bee Bot/Pro-Bot or Scratch on a tablet Debug programs of increasing complexity (SOLVE PROBLEMS) Use logical reasoning to predict the outcome of simple programs	Bee Bot Pro-Bot Scratch Kodable Code.org (Course B) Code club Rugged Robot Tactile Coder iPad coding apps

Computing - Curriculum

Year 2 – Digital Literacy (Lifeskills)	
National Curriculum Objective	Co2/1.5 recognise common uses of information technology beyond school Co2/1.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies
Strand	**Skills/Knowledge**
Online content and critical thinking	Identify how to access information on the internet on more than one type of device Identify different methods of finding information – search engines, voice activation, information sites Know how to use web pages to access information safely Begin to understand that not all information online is true and that it can be questioned
Self-image, mental health and well being	Understand what is meant by being online and offline Know that we can see ourselves reflected online as well as seeing people who are not the same Understand and celebrate that there are similarities and differences online as well as offline Be able to describe how online posts may impact on how people feel about themselves and others
Staying safe online	Know about privacy settings and how to apply them Know how to keep the information on my device safe Describe more detailed examples of information that is personal to an individual and know when it may not be appropriate to post this online (e.g. Address, names, school etc.) Demonstrate strategies for keeping my information private Know rules for home and school about keeping personal information safe Consider why it is appropriate and safe to ask a trusted adult if unsure about sharing personal information online
Online reputation	Understand that the information I put online leaves a digital footprint Understand that my digital footprint can be big or small, helpful or hurtful, depending on I manage it Know that I need to be careful before I share anything about myself or others online Know who I should ask if I am not sure if I should put something online Understand the risks of putting or sharing information on the internet
Online relationships and cyberbullying	Explain some risks of communicating online with others I don't know well Explain why I should be careful who I trust online and what information I can trust Explain what it means to 'know someone' online and why this might be different from knowing someone in real life Explain what is meant by 'trusting someone online' and why this is different from 'liking someone online' Identify how to behave positivity online

Computing - Curriculum

	Explain why it is important to be considerate, kind and respectful to people online Describe ways that some people can be unkind online and how this can make others feel Identify behaviours that may be seen as bullying in different online contexts Know where/who to go to if mine or others' feelings were negatively affected by someone online

Computing - Curriculum

Year 3 – Information Technology

National Curriculum Objective	Co2/1.6 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.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Use index fingers on keyboard home keys (f/j), use left fingers for a/ s/d/f/g, and use right fingers for h/j/k/l Edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows Use cut, copy and paste to quickly duplicate and organise text.	BBC Dance Mat Typing Google Docs Google Docs Google Slides Book Creator
Data Handling	Create my own sorting diagram and complete a data handling activity with it using images and text Start to input simple data into a spreadsheet	Google Sheets
Animation	Create animations of faces to speak in role with more life-like realistic outcomes Use animation tools in presenting software to create simple animations Create stop-motion animation using my own writing as the text	Google Slides Puppetpals ChatterPix Kids iFunFace Animate Toontastic
Video Creation	Sequence clips of mixed media in a timeline and record a voiceover Trim and cut film clips and add titles and transitions Create my own movie trailer	iMovie Videorama Explain Everything Doink Greenscreen
Photography and Digital Art	Confidently take and manipulate photos Create a digital image using a range of tools, pens, brushes and effects	iPad Camera and Markup Notes Pic Collage
Sound	Record my own composition or music and edit this as required Add sound effects to presentations or programming	Voice Memos Garageband Audacity Scratch

Computing - Curriculum

Year 3 – Computer Science

National Curriculum Objective	Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Strand	Skills/Knowledge	Resources/Apps/Links
Computational Thinking	Create algorithms for my programming projects Decompose projects (such as an animation) into steps to create an algorithm Identify patterns in an algorithm	Scratch Code.org (Course C) Code Club Rugged Robot Tactile Coder iPad coding apps
Coding and Programming	Design a program Create a program using a design Create a sequence of code Work with different inputs Evaluate my program	Scratch Code.org (Course C) Code Club Rugged Robot Tactile Coder iPad coding apps
Computer Networks	Understand that computers/printers in a school are connected together in a network Understand why computers are networked Understand the difference between the Internet and the World Wide Web (WWW)	Internet Google Chrome Google Drive Kiddle BBC Newsround

Computing - Curriculum

Year 3 – Digital Literacy (Lifeskills)	
National Curriculum Objective	Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable e behaviour; identify a range of ways to report concerns about content and contact Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Strand	**Skills/Knowledge**
Online content and critical thinking	Know what to do if someone wants information from me Know who I am sharing information with Know what others online tell me may be untrue and can begin to spot the signs of this Be able to spot things that may be false online
Self-image, mental health and well being	To know the importance of managing time online and identify the potential harms of overuse To know what healthy online behaviours are (time spent online, too long etc.) To recognise that some people may pretend to be someone else online and why Be able to identify feelings associated with this (feel sad, worried, uncomfortable or frightened)
Staying safe online	Be able to demonstrate what makes a strong password Know how passwords should be managed Know what passwords are and use them effectively in different contexts Know how to keep information safe online
Online reputation	Have a good awareness of my own online profile – who can see what and how this can be manipulated Describe what information I should not put online without asking a trusted adult first Know what the recommended age limits are for different social media sites, apps and games (focus on games/apps) Know what happens to my information online and how it could be used for harm
Online relationships and cyberbullying	Assess when you need to take action and explain what to do if you are concerned about an online relationship Explain the difference between online bullying and good-natured teasing online Form positive relationships online Identify the range of online platforms available and what you can do on them Describe strategies for safe and fun experiences in a range of online social environments Describe how to behave online in ways that do not upset others

	Identify the different roles people can play in cyberbullying Identify cyberbullying in a range of contexts and work with others online to challenge those behaviours to prevent them recurring Identify the impacts of cyberbullying and know where to go to get help Give examples of effective strategies which might help myself or others Identify and demonstrate actions to support others who are experiencing difficulties online

Computing - Curriculum

Year 4 – Information Technology

National Curriculum Objective	Co2/1.6 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.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Combine digital images from different sources, objects, and text to make a final piece in a variety of tasks: posters, documents, eBooks, scripts, leaflets Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text Use font sizes appropriately for audience and purpose Use spell check and thesaurus including through Siri and other AI technology	Google Docs Google Slides Book Creator
Data Handling	Input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts Understand how data is collected Create my own online multiple-choice questionnaire	Google Sheets Kahoot
Animation	Take multiple animations of a character I have physically created/drawn and edit them together for a longer video Use software to create a 2D/3D animated story	Puppetpals, ChatterPix Kids Animate Anything I Can Animate Puppetmaster
Video Creation	Add music and sound effects to my films Add animated titles and transitions Add simple subtitles to a video clip	iMovie Videorama Explain Everything Doink Greenscreen
Photography and Digital Art	Take a digital photo and use camera settings Manipulate my pictures/shapes to create digital art	iPad Camera and Markup Notes Pic Collage
Sound	Record an audiobook using my own writing as the text Edit sound effects for a purpose	Voice Memos Garageband Audacity

Computing - Curriculum

Year 4 – Computer Science		
National Curriculum Objective	Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Computational Thinking	Write more precise algorithms for use when programming Use simple selection and repetition in algorithms Use logical reasoning to detect and correct errors in programs	Scratch Code.org (Course D) Code Club Coding apps
Coding and Programming	Use repetition in programs (FOREVER) Use simple selection in programs (IF, THEN) Work with different input/outputs (Keyboard/Mouse) Use logical reasoning to systematically detect and correct errors in programs	Scratch Code.org (Course D) Code Club Coding apps
Computer Networks	Understand that servers on the Internet are located across the planet Understand how email is sent across the Internet Understand how the Internet enables us to collaborate	Internet Google Chrome Google Kiddle

Computing - Curriculum

Year 4 – Digital Literacy (Lifeskills)	
National Curriculum Objective	Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable e behaviour; identify a range of ways to report concerns about content and contact Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Strand	**Skills/Knowledge**
Online content and critical thinking	Be able to explain key concepts in order to assess their validity and safety (truth, false, safe, unsafe, skeptical, trusting, question) Consider and understand why information that appears often may not always be factual or true.
Self-image, mental health and well being	Be able to use a range of strategies to manage time online To know that people can look different online from how they are offline Be able to identify ways in which people might make themselves appear different online than how they look offline To know how to seek help when feelings are impacted by the way others appear online
Staying safe online	Know how to manage my online security and privacy Be able to identify how to keep information private
Online reputation	Recognise that information can stay online and could be copied Explain ways that some of the information about me online could have been created, copied or shared by others Know what the recommended age limits are for different social media sites, apps and games (focus on social media) Describe what is appropriate to say and do in different online settings/ platforms (e.g. Opinions, values, information, shares, 'likes', 'forwards') Describe how to effectively challenge content that influences my reputation negatively
Online relationships and cyberbullying	Understand the different places and ways people can communicate online Describe how online technology allows access to and communication with culturally diverse communities beyond our immediate social group Give examples of how to adapt your behaviour to engage positively with those groups considering gender, cultural sensitivity, political and religious beliefs etc. Define what cyberbullying is Identify some online technologies where cyberbullying might take place

	Use the internet with adult support to communicate with people I know Understand the ways in which you can check that someone is who they say they are Know how to spot potentially negative relationships online Identify cyberbullying in a range of contexts and work with others online to challenge those behaviours Identify the impacts of cyberbullying and know where to go to get help Give examples of effective strategies which might help myself or others Identify and demonstrate actions to support others who are experiencing difficulties online

Computing - Curriculum

Year 5 – Information Technology

National Curriculum Objective	Co2/1.6 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.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Start to apply other useful effects to my documents such as hyperlinks Import sounds to accompany and enhance the text in my document Organise and reorganise text on screen to suit a purpose	Google Docs Google Slides
Data Handling	Create and publish my own online questionnaire and analyse the results Use simple formulae to solve calculations including =sum and other statistical functions	Google Sheets Survey Monkey Google Forms
Animation	Add green screen effects to a stop motion animation Create flip book animation using digital drawings and export as a Gif or video	www.flipanim.com Puppetpals, ChatterPix Kids Animate Anything I Can Animate Puppetmaster
Video Creation	Record video content and edit it using Movie Maker Evaluate video tools to best explain my understanding Create green screen clips and insert these into my video	iMovie Videorama Explain Everything Doink Greenscreen
Photography and Digital Art	Enhance digital photos and images using crop, brightness and resize tools Explain how to Photoshop images and how this is used in the media	iPad Camera and Markup Notes Pic Collage
Sound	Record a voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast.	Voice Memos Garageband Audacity

Computing - Curriculum

Year 5 – Computer Science

National Curriculum Objective	Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Computational Thinking	Solve problems by decomposing them into smaller parts to code Use logical reasoning to explain how a variety of algorithms work Evaluate the effectiveness of algorithms	Scratch Code.org (Course E) Code Club Coding apps
Coding and Programming	Use a variety of selection commands when coding (IF, THEN) • I can use conditions in repetition commands (FOREVER) Work with variables (TIMER/SCORE) Create programs for a specific audience or purpose Evaluate my work and identify errors	Scratch Code.org (Course E) Code Club Coding apps
Computer Networks	Understand how we view web pages on the Internet Use search technologies effectively and appropriately Appreciate how pages are ranked in a search engine	Internet Google Chrome Google Kiddle

Computing - Curriculum

Year 5 – Digital Literacy (Lifeskills)	
National Curriculum Objective	Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact • Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Strand	**Skills/Knowledge**
Online content and critical thinking	Know what to do if someone wants to meet me Consider why false or inaccurate information may be posted online Explain why information that is in the media and on a large number of sites may still be inaccurate or untrue Understand some people may give me information to manipulate my actions and thinking online Demonstrate actions that can be taken to keep self-safe from others presenting a false picture of themselves.
Self-image, mental health and well being	Consider how my online behaviours impact on who I am and how this can be both positive and negative To consider what type of influences can at times encourage us to spend too much time online Be able to recognise how I am different and similar to others Be able explain how what we post online or see can impact negatively on how people feel about our self and others Understand how my online identity can be different to my 'real life' identity Understand a range reasons why people may pretend to be someone else online and how they might go about this
Staying safe online	Know how to manage privacy settings and safety features Demonstrate an understanding of how apps work and use information that we enter into them e.g. Contact, images, voice notes etc.) Consider how we keep information safe when using apps Identify online content and ideas ownership
Online reputation	Describe how others can find out information about me by looking online Know what the recommended age limits are for different social media sites, apps and games (focus on social media) Know how to use reporting tools and features such as blocking other users Explain strategies to manage and protect my digital footprint Explain the importance of my online reputation (especially to my future career) and describe ways of managing this

Computing - Curriculum

Online relationships and cyberbullying	Understand the ways in which you can check that someone is who they say they are Understand ways to use your online community for positive means Give examples where positive contributions have effected change in an online community (e.g. Gamergate, gaming communities, social media) Explain strategies for assessing the degree of trust you place in people or organisations online Describe the laws that govern online behaviour and how they inform what is acceptable or legal (e.g. Sexting (and related terminology), trolling, harassment, stalking) Describe actions I could take if I or someone else experiences or is targeted by illegal online behaviour Recognise cyberbullying can be different to bullying in the physical world and describe some of those differences

Computing - Curriculum

Year 6 – Information Technology

National Curriculum Objective	Co2/1.6 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.	
Strand	**Skills/Knowledge**	**Resources/Apps/Links**
Word Processing/Typing	Choose and justify the best application to demonstrate my learning Format text to suit a purpose Publish my documents and discuss the audience and purpose of my content	Google Docs
Data Handling	Write spreadsheet formula to solve more challenging maths problems Create and publish my own online quiz with a range of media (images and video)	Google Sheets Quizizz Kahoot
Animation	Plan, script and create an animation to explain a concept or tell a story Mix animations and videos recordings of myself to create video interviews Choose and create different types of animations to best explain my learning	www.flipanim.com Puppetpals, ChatterPix Kids Animate Anything I Can Animate Puppetmaster
Video Creation	Create videos using a range of media - green screen, animations, film and image Add animated subtitles to my film to further enhance my creation	iMovie Videorama Explain Everything Doink Greenscreen
Photography and Digital Art	Crop and edit a picture to remove items, add backgrounds, merge 2 photos Evaluate and discuss images explaining effects and filters that have been used to enhance the media	iPad Camera and Markup Notes Pic Collage
Sound	Add a voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast) Compose and record a soundtrack that can be added to a film/drama project	Voice Memos Garageband Audacity

Computing - Curriculum

Year 6 – Computer Science

National Curriculum Objective	Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output • Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Strand	Skills/Knowledge	Resources/Apps/Links
Computational Thinking	Write precise algorithms for use when programming Decompose a design or code to focus on specific parts Recognise and make use of patterns in my design and code Critically evaluate my work and suggest improvements	Scratch Code Club Makey Makey Micro-bit Coding apps
Coding and Programming	Use a range of sequence, selection and repetition commands to implement my design (IF, THEN, FOREVER) Identify the need for, and work with, variables (TIMER/SCORE) Identify and write generic code for use across multiple projects Critically evaluate my work and suggest improvements	Scratch Code Club Makey Makey Micro-bit Coding apps
Computer Networks	Understand what HTML is and recognize HTML tags Know a range of HTML tags and can remix a web page Create a webpage using HTML	

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Year 6 – Digital Literacy (Lifeskills)	
National Curriculum Objective	Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Co2/1.4 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 Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Strand	**Skills/Knowledge**
Online content and critical thinking	Describe how some online information can be opinion but appear to be fact and consider why this may happen Demonstrate ways to find out what is fact before acting upon it; making safe choices
Self-image, mental health and well being	Consider what is unique about me that is part of who I am and how this may be affected by what I put online Explore how parts of identity can be seen as positive or negative and recognise ways to have a positive impact on others Know that identity online can be presented in many ways including gender Consider how the media can shape ideas about gender Be able to challenge gender representation online and consider how this impacts on our offline identity Know a range of organisations that would provide a safe space for me to talk about how I see myself compared to others Know how to seek help when feelings are impacted by the way others appear online
Staying safe online	Be able to use online tools such as flagging, reporting and blocking to mitigate the risk Consider how we keep information safe when using apps identify online content and ideas ownership Know of the rules around using someone else's work or ideas
Online reputation	Explain how what I write online can affect my school, family or social group, or future opportunities Know what the recommended age limits are for different social media sites, apps and games (focus on social media) Understand how my digital footprint can impact on my future Build an online presence using a range of technologies that provide a positive representation of who I am

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Online relationships and cyberbullying	Give examples of how to make positive contributions to online debates and discussions Explain how and why people who you communicate with online may try to influence others negatively e.g. grooming; radicalisation; coercion Describe the initial signs of potentially problematic situations e.g. Grooming, cyberbullying Identify and demonstrate actions to support others who are experiencing difficulties online Describe a range of different types of cyberbullying behaviours and assess when these are occurring (e.g. Homophobic, racist, gender, exclusion)