



# GREEN LANE PRIMARY ACADEMY



## Progression of Skills in Computing

EYFS – Information Technology		
NC Objectives	Computing Strand	Skills/Knowledge
Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	Word Processing/Typing	I can play on a touch screen game and use computers/keyboards/mouse in roleplay. I can type letters with increasing confidence using a keyboard and tablet. I can dictate short, clear sentences into a digital device.
	Data Handling	I can identify a chart. I can sort physical objects, take a picture and discuss what I have done. I can present simple data on a digital device.
	Presentations, web design and eBook creation	I can record my voice over a picture.
	Animation	I can create a simple digital collage. I can move and resize images with my fingers or mouse.
	Video Creation	I can animate a simple image to speak in role. I can create a simple animation to tell a story including more than one character.
	Photography and Digital Art	I can take a photograph. I can take a photograph and use it in an app. I can use a painting app and explore the paint and brush tools.
	Augmented Reality and Virtual Reality	I can scan a QR code. I can explore a 360 degree image. I can talk about AR objects in my class.
	Sound	I can record sounds with different resources. I can find ways to change your voice (tube, tin, can, shouting) to create an echo. I can record sounds/voices in storytelling and explanations.

<b>EYFS – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	Computational Thinking	I can follow simple oral instructions. I can spot simple patterns, such as similarities and differences. I can sequence simple familiar tasks.
	Coding and Programming	I can use a mouse, touch screen or appropriate access device to target and select options on screen. I can input a simple sequence of commands to control a digital device with support.

<b>EYFS – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	Self Image and Identity	I can recognise that I can say ‘no’/‘please stop’/‘I’ll tell’/‘I’ll ask’ to somebody who asks me to do something that makes me feel sad, embarrassed or upset. I can explain how this could be either in real life or online.
	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.
	Online Reputation	I can identify ways that I can put information on the internet.
	Online Bullying	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 I can use the internet to find things out. I can identify devices I could use to access information on the internet. I can give simple examples of how to find information (e.g. search engine, voice activated searching).
	Health, Wellbeing and Lifestyle	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.
	Privacy and Security	I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). I can describe the people I can trust and can share this with; I can explain why I trust them.
	Copyright and Ownership	I know that work I create belongs to me. I can name my work so that others know it belongs to me.

<b>Year 1 – Information Technology</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Word Processing/Typing	I can confidently type words quickly and correctly on a digital device. I can use the spacebar to make space and 'delete' to delete letters and words. I can make a new line using enter/return. I can dictate into a digital device more accurately and with punctuation.
	Data Handling	I can sort images or text into two or more categories on a digital device. I can collect data on a topic. I can create a tally chart and a pictogram. I can record myself explaining what I have done and what it shows me.
	Presentations, web design and eBook creation	I can add voice labels to an image. I can add a voice recording to a storyboard. I can add speech bubbles to an image to show what a character thinks. I can import images to a project from the web and camera roll.
	Animation	I can add filters and stickers to enhance an animation of a character. I can create an animation to tell a story with more than one scene. I can add my own pictures to my story animation.
	Video Creation	I can record a film using the camera app. I can select images and record a voiceover. I can highlight and zoom into images as I record.
	Photography and Digital Art	I can edit a photo with simple tools. I can use a paint/drawing app to create a digital image. I can begin to cut out an image to layer on another image.
	Augmented Reality and Virtual Reality	I can scan a trigger image to begin an AR experience. I can pretend to interact with AR objects.
	Sound	I can create a sequence of sounds (instruments, apps and software). I can explore short and long sounds. I can record my voice and add different effects.

<b>Year 1 – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
I understand what algorithms are; how they are implemented as programs on digital	Computational Thinking	I understand what algorithms are. I can write simple algorithms. I understand that the sequence of algorithms is important. I can debug simple algorithms.
	Coding and Programming	I can create a simple program on a digital device (e.g. BeeBot).

<p>devices; and that programs execute by following precise and unambiguous instructions.</p> <p>Create and debug simple programs.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>		<p>I can use sequence in programs.</p> <p>I can locate and fix bugs in my program.</p>
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<b>Year 1 – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
<p>Recognise common uses of information technology beyond school.</p> <p>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.</p>	Self Image and Identity	<p>I can recognise that there may be people online who could make me feel sad, embarrassed or upset.</p> <p>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.</p>
	Online Relationships	<p>I can use the internet with adult support to communicate with people I know.</p> <p>I can explain why it is important to be considerate and kind to people online.</p>
	Online Reputation	<p>I can recognise that information can stay online and could be copied.</p> <p>I can describe what information I should not put online without asking a trusted adult first.</p>
	Online Bullying	<p>I can describe how to behave online in ways that do not upset others and can give examples.</p>
	Managing Online Information	<p>I can use the internet to find things out.</p> <p>I can use simple keywords in search engines.</p> <p>I can describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable, worried or frightened.</p>
	Health, Wellbeing and Lifestyle	<p>I can explain rules to keep us safe when we are using technology both in and beyond the home.</p> <p>I can give examples of some of these rules.</p>
	Privacy and Security	<p>I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school).</p> <p>I can explain why I should always ask a trusted adult before I share any information about myself online.</p>
	Copyright and Ownership	<p>I can explain how passwords can be used to protect information and devices.</p> <p>I can explain why work I create using technology belongs to me.</p> <p>I can say why it belongs to me (e.g. 'It is my idea' or 'I designed it').</p> <p>I can save my work so that others know it belongs to me (e.g. filename, name on content).</p>

<b>Year 2 – Information Technology</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Word Processing/Typing	I can use the space bar only once between words and use touch to navigate to words and letters to edit. I can copy and paste images and text. I can use caps lock for capital letters. I can add images alongside text in a word processed document. I can dictate longer passages into a digital device with accurate punctuation.
	Data Handling	I can sort digital objects into a range of charts such as venn diagrams, carroll diagrams and bar charts using different apps and software. I can orally record myself explaining what the data shows me. I can create a branching database using questions.
	Presentations, web design and eBook creation	I can add voice labels to an image. I can add a voice recording to a storyboard. I can add speech bubbles to an image to show what a character thinks. I can import images to a project from the web and camera roll.
	Animation	I can create multiple animations of an image and edit these together. I can create a simple stop motion animation. I can explain how an animation/flip book works.
	Video Creation	I can write and record a script using a teleprompter tool. I can use tools to add effects to video. I can begin to use green screen techniques with support.
	Photography and Digital Art	I can edit a photo (crop, filters and mark up etc.). I can select and use tools to create digital imagery – controlling the pen and using the fill tool. I can cut images with accuracy to layer on other images.
	Augmented Reality and Virtual Reality	I can bring objects into my surroundings using Augmented Reality. I can create my own QR code.
	Sound	I can create a musical composition using software. I can record my own sound effects. I can record my voice over a composition to perform a song.

<b>Year 2 – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
I understand what algorithms are; how	Computational Thinking	I can write algorithms for everyday tasks. I can use logical reasoning to predict the outcome of algorithms.

<p>they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</p> <p>Create and debug simple programs.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>		<p>I understand decomposition is breaking objects and processes down.</p> <p>I can debug algorithms.</p>
	Coding and Programming	<p>I understand programs follow precise instructions.</p> <p>I can create programs using different digital devices e.g. BeeBot or Scratch Jr.</p> <p>I can debug programs of increasing complexity.</p> <p>I can use logical reasoning to predict the outcome of simple programs.</p>

<b>Year 2 – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
<p>Recognise common uses of information technology beyond school.</p> <p>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.</p>	Self Image and Identity	<p>I can explain how other people’s identity online can be different to their identity in real life.</p> <p>I can describe ways in which people might make themselves look different online.</p> <p>I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might help.</p>
	Online Relationships	<p>I can use the internet to communicate with people I don’t know well (e.g. email a penpal in another school or country).</p> <p>I can give examples of how I might use technology to communicate with others I don’t know well.</p>
	Online Reputation	<p>I can explain how information put online about me can last for a long time.</p> <p>I know who to talk to if I think someone has made a mistake about putting something online.</p>
	Online Bullying	<p>I can give examples of bullying behaviour and how it could look online.</p> <p>I understand how bullying can make someone feel.</p> <p>I can talk about how someone can/would get help about being bullied online or offline.</p>
	Managing Online Information	<p>I can use keywords in search engines.</p> <p>I can demonstrate how to navigate a simple webpage to get information I need (e.g. home, forward/back buttons, links, tabs and sections).</p> <p>I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri).</p> <p>I can explain the difference between things that are imaginary, ‘made up’ or ‘make believe’ and things that are ‘true’ or ‘real’.</p>

		I can explain why some information I find online may not be true.
	Health, Wellbeing and Lifestyle	I can explain simple guidance for using technology in different environments and settings. I can say how those rules/guides can help me.
	Privacy and Security	I can describe how online information about me could be seen by others. I can describe and explain some rules for keeping my information private. I can explain what passwords are and can use passwords for my accounts and devices. I can explain how many devices in my home could be connected to the internet and can list some of those devices.
	Copyright and Ownership	I can describe why other people's work belongs to them. I can recognise that content on the internet may belong to other people.

<b>Year 3 – Information Technology</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
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.	Word Processing/Typing	I can 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. I can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. I can use cut, copy and paste to quickly duplicate and organise text.
	Data Handling	I can create my own sorting diagram and complete a data handling activity with it using images and text. I can start to input simple data into a spreadsheet. I can create a feelings chart exploring a story or character's feelings.
	Presentations, web design and eBook creation	I can annotate an image with videos. I can create a simple web page. I can create a simple digital timeline/mind map.
	Animation	I can create animations of faces to speak in role with more life-like realistic outcomes. I can improve stop motion animation clips with techniques like onion skinning. I can use animation tools in presenting software to create simple animations.
	Video Creation	I can sequence clips of mixed media in a timeline and record a voiceover. I can trim and cut film clips and add titles and transitions. I can independently create a green screen clip. I can create my own movie trailer.
	Photography and Digital Art	I can confidently take and manipulate videos. I can create a digital image using a range of tools, pens, brushes and effects.
	Augmented Reality and Virtual Reality	I can create my own digital 360 image and explore it in VR. I can create my own images and bring it into my surroundings through AR.
	Sound	I can create and edit purposeful compositions using music software to create mood or certain style. I can experiment with live loops to create a song.

<b>Year 3 – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Computational Thinking	I can create algorithms for my programming projects. I can decompose projects (such as animation) into steps to create an algorithm. I understand abstraction is focusing on important information. I can identify patterns in an algorithm.
	Coding and Programming	I can design a program. I can create a program using a design. I can create a sequence of code. I can work with different inputs.



<p>decomposing them into smaller parts.</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>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.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in</p>	<p>Computer Networks</p>	<p>I can evaluate my program.</p> <p>I understand that computers in a school are connected together in a network.</p> <p>I understand why computers are networked.</p> <p>I understand the difference between the internet and the world wide web.</p>
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evaluating digital content.		
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<b>Year 3 – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
<p>Use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>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.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p>	Self Image and Identity	<p>I can explain what is meant by the term 'identity'.</p> <p>I can explain how I can represent myself in different ways online.</p> <p>I can explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media).</p>
	Online Relationships	<p>I can describe ways people who have similar like and interests can get together online.</p> <p>I can give examples of technology-specific forms of communication (e.g. emojis, acronyms, text speak).</p> <p>I can explain some risks of communicating online with others I don't know well.</p> <p>I can explain how my and other people's feelings can be hurt by what is said or written online.</p> <p>I can explain why I should be careful who I trust online and what information I can trust them with. I can explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried.</p> <p>I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life. I can explain what is meant by 'trusting someone online'. I can explain why this is different from 'liking someone online'.</p>
	Online Reputation	<p>I can search for information about myself online.</p> <p>I can recognise I need to be careful before I share anything about myself or others online.</p> <p>I know who I should ask if I am not sure if I should put something online.</p>
	Online Bullying	<p>I can explain what bullying is and can describe how people may bully others.</p> <p>I can describe rules about how to behave online and how I follow them.</p>
	Managing Online Information	<p>I can use key phrases in search engines.</p> <p>I can explain what autocomplete is and how to choose the best suggestion.</p> <p>I can explain how the internet can be used to sell and buy things.</p> <p>I can explain the difference between a 'belief', an 'opinion' and a 'fact'.</p>
	Health, Wellbeing and Lifestyle	<p>I can explain why spending too much time using technology can sometimes have a negative impact on me; I can give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).</p>
	Privacy and Security	<p>I can give reasons why I should only share information with people I choose to and can trust. I can explain that if I am not sure or feel pressured, I should ask a trusted adult.</p> <p>I understand and can give reasons why passwords are important.</p> <p>I can describe simple strategies for creating and keeping passwords private.</p> <p>I can describe how connected devices can collect and share my information with others.</p>
	Copyright and Ownership	<p>I can explain why copying someone else's work from the internet without permission can cause problems.</p> <p>I can give examples of what those problems might be.</p>

<b>Year 4 – Information Technology</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
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.	Word Processing/Typing	I can combine digital images from different sources, objects and text to make a final piece of a variety of tasks; posters, documents, eBooks, scripts, leaflets. I can confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text. I can use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology.
	Data Handling	I can create my own online multiple-choice questionnaire. I can input data into a spreadsheet and export the data in a variety of ways; charts, bar charts and pie charts. I understand how data is collected.
	Presentations, web design and eBook creation	I can create a presentation demonstrating my understanding with a range of media. I can create a digital timeline/mind map and include different media (sound and video).
	Animation	I can take multiple animations of a character I have created and edit them together for a longer video. I can use software to create a 3D animated story. I can use a line draw tool to create animations.
	Video Creation	I can add music and sound effects to my films. I can add animated titles and transitions. I can add simple subtitles to a video clip. I can confidently use green screen, adding animated backgrounds.
	Photography and Digital Art	I can enhance digital images and photographs using crop, brightness, contrast and resize. I can manipulate shapes to create digital art. I can draw a series of images and export as an animated GIF.
	Augmented Reality and Virtual Reality	I can create my own 360 video. I can use the camera to create a 360 image. I can add multiple objects into my surroundings through AR to explain a concept.
	Sound	Edit sound effects for a purpose. Create a simple four chord song following the correct rhythm. I can record a radio broadcast or audiobook.

<b>Year 4 – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Design, write and debug programs that accomplish specific	Computational Thinking	I can use abstraction to focus on what is important in my design. I can write more precise algorithms for use when programming. I can use simple selection and repetition in algorithms.

<p>goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>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.</p> <p>Use search technologies effectively,</p>		I can use logical reasoning to detect and correct errors in programs.
	Coding and Programming	<p>I can use repetition in programs.</p> <p>I can use simple selection in programs.</p> <p>I can work with different outputs.</p> <p>I can use logical reasoning to systematically detect and correct errors in programs.</p>
	Computer Networks	<p>I understand that servers on the internet are located across the planet.</p> <p>I understand how email is sent across the internet.</p> <p>I understand how the internet enables us to collaborate.</p>

appreciate how results are selected and ranked and be discerning in evaluating digital content.		
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<b>Year 4 – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Self Image and Identity	I can explain how my online identity can be different to the identity I present in 'real life'. Knowing this, I can describe the right decisions about how I interact with others and how others perceive me.
	Online Relationships	I can describe strategies for safe and fun experiences in a range of online social environments. I can give examples of how to be respectful to others online.
	Online Reputation	I can describe how others can find out information about me by looking online. I can explain ways that some of the information about me online could have been created, copied or shared by others.
	Online Bullying	I can identify some online technologies where bullying might take place. I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation).
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.	Managing Online Information	I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'. I can describe how I can search for information within a wide group of technologies (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 that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people. I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.
	Health, Wellbeing and Lifestyle	I can explain how using technology can distract me from other things I might do or should be doing. I can identify times or situations when I might need to limit the amount of time I use technology. I can suggest strategies to help me limit this time.
Use search technologies effectively, appreciate how results are selected	Privacy and Security	I can explain what a strong password is. I can describe strategies for keeping my personal information private, depending on context. I can explain that others online can pretend to be me or other people, including my friends. I can suggest reasons why they might do this.

and ranked and be discerning in evaluating digital content.		I can explain how internet use can be monitored.
	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.

<b>Year 5 – Information Technology</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
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.	Word Processing/Typing	I can start to apply other useful effects to my documents such as hyperlinks. I can import sounds to accompany and enhance the text in my document. I can organise and reorganise text on screen to suit a purpose.
	Data Handling	I can create and publish my own online questionnaire and analyse the results. I can use simple formulae to solve calculations including =sum and other statistical functions. I can edit and format different cells in a spreadsheet.
	Presentations, web design and eBook creation	I can collaborate with peers using online tools e.g. blogs, Google Drive, Office 365. I can create and export an interactive presentation including a variety of media, animations, transitions and other effects. I can create a webpage and embed video.
	Animation	I can record animations of different characters and edit them together to create an interview. I can add green screen effects to a stop motion animation.
	Video Creation	I can evaluate and improve the best video tools to best explain my understanding. I can further improve green screen clips using crop and resize and explore more creative ways to use the tool e.g. wearing green clothes and using the masking tool.
	Photography and Digital Art	I can make a digital photo using camera settings. I can enhance digital photos and images using crop, brightness and resize tools. I can link and explain how to photoshop images and how this is used in the media.
	Augmented Reality and Virtual Reality	I can create an animated object and bring it into my surroundings through AR. I can create an AR experience using objects I have created to explain a concept.
	Sound	I can add a voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. I can create a remix of a popular song.

<b>Year 5 – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Computational Thinking	I can solve problems by decomposing them into smaller parts. I can use selection in algorithms. I can use logical reasoning to explain how a variety of algorithms work. I can evaluate the effectiveness of algorithms.
	Coding and Programming	I can create programs by decomposing them into smaller parts. I can use a variety of selection commands in programs. I can use conditions in repetition commands. I can work with variables. I can create programs that control or simulate physical systems.

<p>decomposing them into smaller parts.</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the worldwide web; and the opportunities they offer for communication and collaboration.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in</p>	<p>Computer Networks</p>	<p>I can evaluate my work and identify errors.</p> <p>I understand how we view web pages on the internet.</p> <p>I use search technologies effectively.</p> <p>I understand that web spiders index the web for search engines.</p> <p>I appreciate how pages are ranked in a search engine.</p>
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<b>Year 5 – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
<p>Use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>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.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in</p>	Self Image and Identity	<p>I can explain how identity online can be copied, modified or altered.</p> <p>I can demonstrate responsible choices about my online identity, depending on context.</p>
	Online Relationships	<p>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.</p> <p>I can make positive contributions and be part of online communities.</p> <p>I can describe some of the communities in which I am involved and describe how I collaborate with others positively.</p>
	Online Reputation	<p>I can search for information about an individual online and create a summary report of the information I find.</p> <p>I can describe ways that information about people online can be used by others to make judgements about an individual.</p>
	Online Bullying	<p>I can recognise when someone is upset, hurt or angry online.</p> <p>I can describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone.</p> <p>I can explain how to block abusive users.</p> <p>I can explain how I would report online bullying on the apps and platforms that I use.</p> <p>I can describe the helpline services who can support me and what I would say and do if I needed their help e.g. Childline.</p>
	Managing Online Information	<p>I can use different search technologies.</p> <p>I can evaluate digital content and can explain how I make choices from search results.</p> <p>I can explain key concepts including data, information, fact, opinion, belief, true, false, valid, reliable and evidence.</p> <p>I understand the difference between misinformation (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead). I can explain what is meant by 'being sceptical'.</p> <p>I can give examples of when and why it is important to be 'sceptical'. I can explain what is meant by a 'hoax'.</p> <p>I can explain why I need to think carefully before I forward anything online.</p> <p>I can explain why some information I find online may not be honest, accurate or legal.</p> <p>I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen e.g. the sharing of misinformation either by accident or on purpose.</p>
	Health, Wellbeing and Lifestyle	<p>I can describe ways technology can affect healthy sleep and can describe some of the issues.</p> <p>I can describe some strategies, tips or advice to promote healthy sleep with regards to technology.</p>
Privacy and Security	<p>I can create and use strong and secure passwords.</p>	

evaluating digital content.		I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing.
	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.

<b>Year 6 – Information Technology</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
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.	Word Processing/Typing	I can confidently choose the best application to demonstrate my learning. I can format text to suit a purpose. I can publish my documents online regularly and discuss the audience and purpose of my content.
	Data Handling	I can write spreadsheet formulas to solve more challenging maths problems. I can create and publish my own online quiz with a range of media (images and video).
	Presentations, web design and eBook creation	I can create a website that includes a variety of media. I can choose applications to communicate to a specific audience. I can evaluate my own content and consider ways to make improvements.
	Animation	I can mix animations and video recordings of myself to create video interviews. I can plan, script and create an animation to explain a concept or tell a story. I can choose and create different types of animations to best explain my learning.
	Video Creation	I can use the green screen masking tool with more than one character. I can use picture-in-picture tools in iMovie. I can add animated subtitles to my film to further enhance my creation. I can create videos using a range of media – green screen, animations, film and image.
	Photography and Digital Art	I can edit a picture to remove items, add backgrounds and merge 2 photos. I can evaluate and discuss images explaining effects and filters that have been used to enhance the media.
	Augmented Reality and Virtual Reality	I can create and upload my own VR Google Expedition. I can create an interactive poster using AR. I can explain how VR and AR works.
	Sound	I can add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast or podcast. I can compose a soundtrack that can be added to a film project.

<b>Year 6 – Computer Science</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Computational Thinking	I can write precise algorithms for use when programming. I can decompose a design or code to focus on specific parts. I can use abstraction to hide complexity in my design or code. I can recognise and make use of patterns in my design and code. I can critically evaluate my work and suggest improvements.
	Coding and Programming	I can use a range of sequence, selection and repetition commands to implement my design. I can identify the need for, and can work with, variables. I can identify and write generic code for use across multiple projects. I can critically evaluate my work and suggest improvements.

<p>decomposing them into smaller parts.</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the worldwide web; and the opportunities they offer for communication and collaboration.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in</p>	<p>Computer Networks</p>	<p>I can identify and use basic HTML tags.</p> <p>I understand what HTML is and recognise HTML tags.</p> <p>I know a range of HTML tags and can remix a webpage.</p> <p>I can create a webpage using HTML.</p>
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evaluating digital content.		
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<b>Year 6 – Digital Literacy &amp; E-Safety</b>		
<b>NC Objectives</b>	<b>Computing Strand</b>	<b>Skills/Knowledge</b>
<p>Use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>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.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p>	Self Image and Identity	<p>I can describe ways in which media can shape ideas about gender.</p> <p>I can identify messages about gender roles and make judgements based on them.</p> <p>I can challenge and explain why it is important to reject inappropriate messages about gender online.</p> <p>I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. I know and can give examples of how I might get help, both online and offline.</p> <p>I can explain why I should keep asking until I get the help I need.</p>
	Online Relationships	<p>I can show I understand my responsibilities for the well-being of others in my online social group.</p> <p>I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming).</p> <p>I can demonstrate how I would support others (including those who are having difficulties) online.</p> <p>I can demonstrate ways of reporting problems online for both myself and my friends.</p>
	Online Reputation	<p>I can explain how I am developing an online reputation that will allow other people to form an opinion of me.</p> <p>I can describe some simple ways that help build a positive online reputation.</p>
	Online Bullying	<p>I can describe how to capture bullying content as evidence (e.g. screen grab, URL, profile) to share with others who can help me.</p> <p>I can identify a range of ways to report concerns both in school and at home about online bullying.</p>
	Managing Online Information	<p>I can use search technologies effectively.</p> <p>I can explain how search engines work and how results are selected and ranked.</p> <p>I can demonstrate the strategies I would apply to be discerning in evaluating digital content.</p> <p>I can describe how some online information can be opinion and can offer examples.</p> <p>I can explain how and why some people may present ‘opinions’ as ‘facts’. I can define the terms ‘influence’, ‘manipulation’ and ‘persuasion’ and explain how I might encounter these online (e.g. advertising and ‘ad targeting’).</p> <p>I can demonstrate strategies to enable me to analyse and evaluate the validity of ‘facts’ and I can explain why using these strategies are important.</p> <p>I can identify, flag and report inappropriate content.</p>
Health, Wellbeing and Lifestyle	<p>I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.</p> <p>I can assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise).</p> <p>I can explain the importance of self-regulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents).</p>	

	Privacy and Security	<p>I use different passwords for a range of online services.</p> <p>I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories).</p> <p>I know what to do if my password is lost or stolen.</p> <p>I can explain what app permissions are and can give some examples from the technology or services I use.</p> <p>I can describe simple ways to increase privacy on apps and services that provide privacy settings.</p> <p>I can describe ways in which some online content targets people to gain money or information illegally.</p> <p>I can describe strategies to help me identify such content (e.g. scams, phishing).</p>
	Copyright and Ownership	<p>I can demonstrate the use of search tools to find and access online content that can be reused by others.</p> <p>I can demonstrate how to make references to and acknowledge sources I have used from the internet.</p>