



Bagthorpe Primary School

Curriculum Progression Plan

Computing

	Year R	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Word Processing and Typing	• I can play on a touch screen game and use computers/keyboards/mouse in role play • I can type letters with increasing confidence using a keyboard and tablet. • I can dictate short, clear sentences into a digital device.	• I can confidently type words quickly and correctly on a digital device. • I can use the space bar to make space and delete to delete letters/words • I can make a new line using enter/return • I can dictate into a digital device more accurately and with punctuation.	• I can use the space bar only once between words and use touch to navigate to words • I can copy and paste images and text • Use caps locks 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.	• 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.	• 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. • 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 to find synonyms.	• 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	• 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 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.	• 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 pictogram. • I can record myself explaining what I have done and what it shows me.	• 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	• 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.	• 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, pie charts. • I understand how data is collected.	• 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 difference cells in a spreadsheet.	• I can write spreadsheet formula to solve more challenging maths problems. • I can create and publish my own online quiz with a range of media (images and video).
Computational Thinking	• I can follow simple oral algorithms • I can spot simple patterns • I can sequence simple familiar tasks	• I understand what algorithms are • I can write simple algorithms • I understand the sequence of algorithms is important	• I can write algorithms for everyday tasks • I can use logical reasoning to predict the outcome of algorithms • I understand decomposition is	• I can create algorithms for use when programming • I can decompose tasks (such as animations) into separate steps to create an algorithm	• I can use abstraction to focus on what's important in my design • I can write increasingly more precise algorithms for use when programming.	• I can solve problems by decomposing them into smaller parts • I can use selection in algorithms • I can recognise the need for conditions in	• I can recognise, and make use, of patterns across programming projects • I can write precise algorithms for use when programming

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		• I can debug simple algorithms • I understand that algorithms are implemented as programs on digital devices	breaking objects/processes down • I can implement simple algorithms on digital devices (Bee Bots, Apps: Daisy the Dino) • I can debug algorithms	• I understand abstraction is focusing on important information • I can identify patterns in an algorithm I can use repetition in algorithms	• I can use simple selection in algorithms • I can use logical reasoning to detect and correct errors in programs	repetition within algorithms • I can use logical reasoning to explain how a variety of algorithms work • I can use logical reasoning to detect and correct errors in algorithms • I can evaluate my work and identify errors	• I can identify variables needed and their use in selection and repetition • I can decompose code into sections for effective debugging • I can critically evaluate my work and suggest improvements
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 (Bee Bot)	• I can create a simple program e.g. sequence of instructions for a Bee Bot • I can use sequence in programs I can locate and fix bugs in my program	• I understand programs execute by following precise and unambiguous instructions • I can create programs on a variety of digital devices • I can debug programs of increasing complexity • I can use logical reasoning to predict the outcome of simple programs	• I can design and create programs • I can write programs that accomplish specific goals • I can use repetition in programs I can work with various forms of input	• I can use simple selection in programs • I can work with various forms of output • I can use logical reasoning to systematically detect and correct errors in programs • I can work with various forms of output	• I can create programs by decomposing them into smaller parts • I can use selection in programs • I can use conditions in repetition commands • I can work with variables • I can create programs that control or simulate physical systems • I can evaluate my work and identify errors	• I can use a range of sequence, selection and repetition commands combined with variables as required to implement my design • I can create procedures to hide complexity in programs • I can identify and write generic code for use across multiple projects • I can critically evaluate my work and suggest improvements • I can identify and use basic HTML tags (See Computer Networks objectives)
Computer Networks				• I understand that computers in a school are connected together in a network • I understand why computers are networked • I understand the difference between the	• I understand that servers on the Internet are located across the planet • I understand how email is sent across the Internet • I understand how the Internet enables us to collaborate	• I understand how we view web pages on the Internet • I use search technologies effectively • I understand that web spiders index the web for search engines	• I understand what HTML is and recognize HTML tags • I know a range of HTML tags and can remix a web page • I can create a webpage using HTML

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				Internet and the World Wide Web (WWW)		I appreciate how pages are ranked in a search engine	
Animation & Sound	- 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 - 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	- 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. - I can create a sequence of sounds (instruments, apps/software) - I can explore short and long sounds. - I can record my voice and add different effects.	- 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. - 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.	- 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. - I can create and edit purposeful compositions using music software to create mood or a certain style. - I can experiment with live loops to create a song.	- 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 an animated story. - I can use line draw tool to create animations. - Edit sound effects for a purpose. - Create a simple four chord song following the correct rhythm. - I can record a radio broadcast or audiobook.	- 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. - I can create flip book animation using digital drawings and export as a Gif or video. - Add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. - Create a remix of a popular song.	- I can mix animations and videos recordings of myself to create video interviews. - I can plan, script and create a 3D animation to explain a concept or tell a story. - I can choose and create different types of animations to best explain my learning. - Add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast) - Compose a soundtrack that can be added to a project.
Presentations, Web Designs and eBook Creation	- I can record my voice over a picture. - I can create a simple digital collage. - I can move and resize images with my fingers or mouse.	- I can add labels to an image - I can order images to create a simple storyboard. - I can create a simple spider diagram. - I can sequence a series of pictures to explain my understanding of a topic.	- 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 is thinking. - I can import images to a project from the web and camera roll	- I can create an interactive comic with sounds, formatted text and video. - I can annotate an image with videos - I can create a simple web page. - I can create a simple digital timeline/mind-map	- I can create an interactive quiz eBook introducing hyperlinks. - I can create an eBook with text, images and sound. - 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	- I can collaborate with peers using online tools, e.g. Google Classroom and Google Drive - I can create and export an interactive presentation including a variety of media, animations, transitions and other effects. - I can create a webpage or presentation and embed video	- I can create a web site which includes a variety of media. - I can design an app prototype that links multimedia pages together with hyperlinks. - I can choose applications to communicate to a specific audience. - I can evaluate my own content and consider ways to improvements.

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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	• 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.	• I can edit a photo (crop, filters, 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.	• I can confidently take and manipulate photos • I can create a digital image using a range of tools, pens, brushes and effects • I can create transparent images.	• I can enhance digital images and photographs using crop, brightness, contrast & resize • I can manipulate shapes to create 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.	• I can edit a picture to remove items, add backgrounds, merge 2 photos • I can evaluate and discuss images explaining effects and filters that have been used to enhance the media. • Use a 3D drawing app to create a realistic representation of world objects.
Digital Literacy: 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.	• I can recognise that there may be people online who could make me 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.	• I can explain how other people's identity online can be different to their identity in real life. • I can describe ways in which people might make themselves look different online. • 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 get help.	• I can explain what is meant by the term 'identity'. • I can explain how I can represent myself in different ways online. • 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).	• 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.	• I can explain how identity online can be copied, modified or altered. • I can demonstrate responsible choices about my online identity, depending on context.	• I can describe ways in which media can shape ideas about gender. • I can identify messages about gender roles and make judgements based on them. • I can challenge and explain why it is important to reject inappropriate messages about gender online. • 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 on and offline. • I can explain why I should keep asking until I get the help I need.
Digital Literacy: 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	• I can use the internet with adult support to communicate with people I know. • I can explain why it is important to be	• I can use the internet to communicate with people I don't know well (e.g. email a pen-pal in another school/ country).	• I can describe ways people who have similar likes and interests can get together online. • I can give examples of technology-specific	• I can describe strategies for safe and fun experiences in a range of online social environments	• 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	• I can show I understand my responsibilities for the well-being of others in my online social group. • I can explain how impulsive and rash

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	communicate with people I know.	considerate and kind to people online.	I can give examples of how I might use technology to communicate with others I don't know well.	forms of communication (e.g. emojis, acronyms, text speak). - I can explain some risks of communicating online with others I don't know well. - I can explain how my and other people's feelings can be hurt by what is said or written online. - 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. - 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'.	I can give examples of how to be respectful to others online.	that this is not my/our fault. - I can make positive contributions and be part of online communities. - I can describe some of the communities in which I am involved and describe how I collaborate with others positively	communications online may cause problems (e.g. flaming, content produced in live streaming). - I can demonstrate how I would support others (including those who are having difficulties) online. - I can demonstrate ways of reporting problems online for both myself and my friends.
Digital Literacy: Online Bullying	- I can describe ways that some people can be unkind online. - I can offer examples of how this can make others feel.	I can describe how to behave online in ways that do not upset others and can give examples.	- I can give examples of bullying behaviour and how it could look online. - I understand how bullying can make someone feel. - I can talk about how someone can/would	- I can explain what bullying is and can describe how people may bully others. - I can describe rules about how to behave online and how I follow them.	- 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 recognise when someone is upset, hurt or angry online. - I can describe how to get help for someone that is being bullied online and assess when I need to do or say	- 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 identify a range of ways to report

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			get help about being bullied online or offline.		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).	something or tell someone. - I can explain how to block abusive users. - I can explain how I would report online bullying on the apps and platforms that I use. - 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).	concerns both in school and at home about online bullying.
Digital Literacy: Online Reputation	I can identify ways that I can put information on the internet.	- 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	- I can explain how information put online about me can last for a long time. - I know who to talk to if I think someone has made a mistake about putting something online.	- I can search for information about myself online. - I can recognise I need to be careful before I share anything about myself or others online. - I know who I should ask if I am not sure if I should put something online.	- 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.	- I can search for information about an individual online and create a summary report of the information I find. - I can describe ways that information about people online can be used by others to make judgments about an individual.	- I can explain how I am developing an online reputation which will allow other people to form an opinion of me. - I can describe some simple ways that help build a positive online reputation
Digital Literacy: 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.	- I can explain rules to keep us safe when we are using technology both in and beyond the home. - I can give examples of some of these rules.	- I can explain simple guidance for using technology in different environments and settings. - I can say how those rules/guides can help me	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).	- 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.	- I can describe ways technology can affect healthy sleep and can describe some of the issues. - I can describe some strategies, tips or advice to promote healthy sleep with regards to technology	- I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. - 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).

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							• 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).
Digital Literacy: 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).	• I can use the internet to find things out. • I can use simple keywords in search engines. • 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.	• I can use 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 (e.g. Alexa, Google Now, Siri). • 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 true.	• I can use key phrases in search engines. • 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'.	• 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. • can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.	• I can use different search technologies. • I can evaluate digital content and can explain how I make choices from search results. • I can explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence. • I understand the difference between online mis-information (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'. • I can give examples of when and why it is important to be 'sceptical'. I can explain what is meant by a 'hoax'. • I can explain why I need to think carefully before I forward anything online. • I can explain why some information I find	• I can use search technologies effectively. • I can explain how search engines work and how results are selected and ranked. • I can demonstrate the strategies I would apply to be discerning in evaluating digital content. • I can describe how some online information can be opinion and can offer examples. • 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'). • 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.

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						online may not be honest, accurate or legal. • 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).	• I can identify, flag and report inappropriate content.
Digital Literacy: Privacy & 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 can trust them.	• 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). • I can explain why I should always ask a trusted adult before I share any information about myself online. • I can explain how passwords can be used to protect information and devices.	• I can describe why other people's work belongs to them. • I can recognise that content on the internet may belong to other people.	• 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 I feel pressured, I should ask a trusted adult. • I understand and can give reasons why passwords are important. • I can describe simple strategies for creating and keeping passwords private. • I can describe how connected devices can collect and share my information with others.	• 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 • I can explain how internet use can be monitored.	• I can create and use strong and secure passwords. • 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.	• I use different passwords for a range of online services. • I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). • I know what to do if my password is lost or stolen. • I can explain what app permissions are and can give some examples from the technology or services I use. • I can describe simple ways to increase privacy on apps and services that provide privacy settings. I can describe ways in which some online content targets people to gain money or information illegally; • I can describe strategies to help me identify such content (e.g. scams, phishing)

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Digital Literacy: 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.	• I can explain why work I create using technology belongs to me. • I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). • I can save my work so that others know it belongs to me (e.g. filename, name on content).	• I can describe why other people's work belongs to them. • I can recognise that content on the internet may belong to other people.	• I can explain why copying someone else's work from the internet without permission can cause problems. • I can give examples of what those problems might be.	• 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.	• 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.	• 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.