Computing Year group Objectives

KS1

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| Year 1 |
| Control Systems | Understand what algorithms are |
| Create simple programmes |
| Information Technology | Use technology to create content |
| Use technology to store digital content |
| Use a mouse or trackpad effectively to navigate websites |
| Save and reopen work on a digital device |
| Digital Literacy | Use technology safely |
| Log on to a computer |
| Keep personal information private |
| Recognise common uses of technology beyond school |

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| Year 2 |
| Control Systems | Use logical reasoning to predict the behaviour of programmes |
| Debug simple programmes |
| Understand that algorithms are implemented as programmes on digital devices |
| Understand that programmes run by following precise instructions |
| Information Technology | Use technology to organise digital content |
| Use technology to create, communicate and collaborate |
| Use ICT to source, generate and amend images.  |
| Begin to change or enhance photographs and pictures (crop, recolour).  |
| Create a simple animation using still images |
| Take digital photographs and record video  |
| Use software to explore sound and musical phrases.  |
| Discuss and explore how to use ICT to organise, present and understand data as a simple graph.  |
| Digital Literacy | Use technology respectfully |
| Understand where/how to seek help when they have concerns about content |

KS2

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| Year 3 |
| Control Systems | Write programmes that create specific goals |
| Use sequence in programmes |
| Work with various forms of input and output |
| Information Technology | Use search technology to communicate effectively |
| Use technology to collect information |
| Use a database to retrieve information |
| Present data in a range of ways to convey information |
| Use technology to collaborate on a task |
| Edit digital content in response to feedback |
| Digital Literacy | Use technology responsibly |
| Identify a range of ways to share concerns about conduct |
| Recognise the benefits and risks of different apps and websites |
| Understand the importance of a good password |
| Understand the dangers of spending too long online and the importance of regular screen breaks. |
| Understand when to share personal information and when not to |

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| Year 4 |
| Control Systems | I can experiment with variables to control models |
| Design, write and debug programmes that perform specific goals. |
| Use sequence, selection and repetition in programs; work with variables. |
| I can make accurate predictions about what I think will happen |
| Understand computer networks, e.g. the internet |
| Information Technology | I can select and use software to accomplish given goals |
| I can collect and present data in different ways |
| Design and create digital content for a specific purpose |
| I can evaluate and analyse information |
| I can use technology to collaborate in different ways |
| Use ICT to compose music or sounds including creating melodies |
| Storyboard and shoot a short stop motion animated sequence. |
| Use a range of tools to edit and enhance media for particular effect |
| Digital Literacy | I recognise acceptable and unacceptable behaviour using technology |
| Compose emails |
| Know how to respond to unpleasant communications via texts, IM, email or chat rooms. |
| Understand the opportunities technology offers for communication |
| Be discerning in evaluating digital content |

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| Year 5 |
| Control Systems | I can combine sequences of instructions to turn an external device on and off |
| Use logical reasoning to detect errors in algorithms |
| Understand how computer networks work including the internet |
| Use selection within programs |
| Information Technology | Understand how search results are ranked |
| Select and combine software on a range of devices |
| Generate, amend and combine visual media from different sources for a specific audience or task.  |
| Create a movie including still images and sound and add suitable titles and transitions.  |
| Capture/review different images, considering lighting, positioning and angle appropriate to a given task/audience.  |
| Understand the benefits of technology to collaborate with others |
| Use filters in a database to find out specific information |
| Recognise an audience when designing and creating digital content |
| Identify and use appropriate hardware and software to fulfil a specific task |
| Create different types of graphs and charts that are appropriate to the data I am using; I can use them to interpret and answer a specific question.  |
| I can select and use suitable software and hardware to produce a multimedia soundtrack. |
| Digital Literacy | Know where to find copyright free images and audio, and why this is important |
| Beginning to question information based on author and location; recognise different viewpoints and the impact of incorrect data.  |
| Share and exchange ideas using emails/electronic communication respectfully.  |
| Understand the issues of copyright and the importance of acknowledging sources.  |
| Understand that everything we do online leaves a digital footprint that can last forever. |
| Know what to do and who to contact if we see something that upsets / concerns us online. |
| Understand privacy settings and what pictures are appropriate to share online. |
| Discuss the benefits and dangers of communicating online/through different forms of technology. |
| Know the meaning of common website extensions (.org, . net. Gov etc)  |
| Understand what makes a strong password and why this is important at school and in the wider world  |

Enrichment

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| Year 6 |
| Control Systems | I recognise that different solutions can exist for the same problem |
| Use logical reasoning to detect errors in algorithms |
| Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say “well done” |
| Can design a physical computing system that uses sensors, e.g. using a flow chart  |
| Refine a program based on end user feedback. |
| I can explore 'what if' questions by planning different scenarios for controlled devices |
| Information Technology | Appreciate how search results are ranked |
| Select and combine software on a range of devices |
| Collaborate with individuals and groups to create digital content for a specific purpose.  |
| Discuss and explore the use of ICT to sort, organise and classify objects based on their properties.  |
| Use ICT to create and modify charts quickly and easily.  |
| Create databases, retrieve information and draw conclusions based on results entered. |
| Find suitable images, video and sounds from appropriate sources, taking into account copyright issues.  |
| Remix and edit a range of media to create content. |
| Use appropriate ICT resources to compose music or sounds to accompany a story.  |
| Choose appropriate hardware to capture and review a range of images, considering lighting, positioning, sound quality and angle. |
| Digital Literacy | Critically evaluate websites for reliability of information/ bias and authenticity to include use of social media |
| Demonstrate responsible use of online services and technologies, and know a range of ways to report concerns |
| Understand the impact of an individual sending or uploading unkind or inappropriate content. |
| I can produce formal or informal messages, appropriate to the task |
| Understand what ‘Plagiarism’ means and that it is important to acknowledge sources.  |
| Understand that not all information on the internet is legal to use or copy  |
| Understand that we are all digital citizens and the potential impact and influence we can have on the outside world |
| Know the meaning of common website extensions (.org, . net. Gov etc) Identify secure servers (padlock such as internet banking). |
| Become increasingly savvy online consumers: know that algorithms are used to track online activities with a view to targeting advertising and information |