

CURRICULUM OVERVIEW

COMPUTING

Year Group	Content studied	Key Skills and Understanding Progression
1	<p>Word Processing</p> <p>Basic Computer Skills</p> <p>Using Digital Media</p> <p>Basic internet use</p> <p>E-safety</p>	<ul style="list-style-type: none"> • I can use a mouse to navigate on a computer • I can use a keyboard to enter information on a computer • I can use technology safely and respectfully. • I can identify where to go for help and support when I have concerns about content or contact on the internet or other online technologies. • I can use a systematic approach to control and predict the behaviour of simple programs (e.g control a roamer) • I can recognise common uses of information technology beyond school • I can identify simple mistakes in my work and evaluate and correct them • I know to keep personal information private • I am able to navigate age appropriate websites • I can understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • I can create and debug simple programs • I can use technology purposefully to create, organise, store, manipulate and retrieve digital content
2	<p>Word processing</p> <p>Evaluating information from the internet</p> <p>Programming a digital device using simple algorithms (Lego)</p> <p>Evaluating and improving work</p>	<ul style="list-style-type: none"> • I can use a systematic approach to control and predict the behaviour of simple programs (e.g control a roamer) • I can evaluate critically, information found online • I can understand that an algorithm is a step by step guide to achieving a goal • I can give unambiguous instructions to a digital device to achieve a goal (e.g. controlling a roamer to reach a given destination) • I can create and debug (correct/improve) simple programs (e.g. use a roamer) • I can use technology purposefully to create, organise, store, manipulate and retrieve digital content (e.g. opening, editing and saving a document) • I can make basic evaluations of my work and thinks of ways to improve it

	E-Safety	<ul style="list-style-type: none"> • I can understand the need to keep passwords safe • I can start to identify concerning behaviour online • I can use the internet purposefully to achieve a goal • I know that not everything online is true • to improve it • I can recognise acceptable/unacceptable behaviour online • I am critical of information found online
3	<p>Effective and safe research online</p> <p>Critically evaluating information from the internet</p> <p>Programming digital devices using algorithms (Scratch)</p> <p>Creating and debugging simple programmes</p> <p>Evaluating and improving work</p> <p>E-Safety</p>	<ul style="list-style-type: none"> • I can recognise acceptable/unacceptable behaviour online • I am critical of information found online • I can understand that an algorithm is a step by step guide to achieving a goal • I can give unambiguous instructions to a digital device to achieve a goal (e.g. controlling a roamer to reach a given destination) • I can create and debug (correct/improve) simple programs • I can use technology safely, respectfully and responsibly • I can keep personal information private • I can identify a range of ways to report concerns about content and contact • I can understand ways in which people communicate online and the potential danger (including devices such as Xbox and other online gaming) • I can use internet to undertake purposeful research • I have awareness of copyright issues around images found online • I recognise that some algorithms rely upon a strict order to work (e.g. using sequencing and repetition with a roamer) • I can use various inputs (e.g. keyboard presses) and outputs (e.g. playing a sound) to control a computer program (e.g. control a Scratch program with a keyboard input) • I can explain how a program works • I can identify errors or improvements in a program that I have created • I can use the internet safely for research and to follow lines of enquiry • I can write and debug programs that respond to user input with support

<p>4</p>	<p>Using shared documents</p> <p>Explaining how more complicated algorithms work</p> <p>Understanding plagiarism and refining internet searches</p> <p>E-safety</p> <p>Evaluating work</p>	<ul style="list-style-type: none"> • I can write and debug programs that respond to user input • I can identify errors or improvements in a program that I have created and can make improvements with support. • I can use the internet safely for research and to follow lines of enquiry • I understand the function of a search engine and understand the importance of using the correct search terms • I am beginning to understand the concept of plagiarism • I can think about the risks of sharing personal information online (including photographs) and understand the idea of a digital footprint • I can use logical reasoning to explain how some more complicated algorithms (e.g. a sequence of instructions) work • I can detect and correct errors in algorithms and programs • I can understand the opportunities that networks offer for communication and collaboration (e.g. working on shared documents) • I can evaluate my work in a variety of ways (e.g. peer- or self-assessment, open discussion with peers or teachers) • I am working towards the Key Stage 2 Key Skills list • I understand the concept of plagiarism • I can understand how data is transferred over the internet and how this provides potential beyond the world wide web
<p>5</p>	<p>Computer networks</p> <p>Data Protection</p> <p>Testing algorithms and applying them to real life problems</p> <p>Understanding bias and critically evaluating online sources</p> <p>E - Safety</p>	<ul style="list-style-type: none"> • I understand that the internet is used for systems other than the world wide web (e.g. email) • I can design algorithms that can start to solve real life problems • I am beginning to think critically about the information that I put online • I understand that information found online is not always true and unbiased • I am starting to develop skills in identifying the origin of website • I can think critically about the information that I put online • I understand the difference between a computer network and the internet • I understand what a network is and how it links devices • I can use networks for communication and collaboration (e.g. working on shared documents) • I can design, write and debug algorithms to solve real world problems using physical or digital devices • I begin to understand the concept of data protection • I can design, write and debug algorithms to solve real life problems and use testing and feedback to improve and adapt them • I can use internet systems other than the world wide web to communicate safely and work collaboratively.

6	<p>Data Protection</p> <p>Integrating information/data from a range of digital programmes to create a presentation</p> <p>E -Safety</p>	<ul style="list-style-type: none"> • I begin to understand the concept of data protection • I can use a range of programs to create a document collaboratively • I can select data to be collected and displayed digitally and begin to understand how I might do that • I understand plagiarism, copyright and the concept of data protection • I can design and create a program and debug it by collecting data and feedback from a group • I can independently select and use software to achieve a goal • I can collect, analyse, evaluate and present data and information using a digital device • I can select and combine a variety of software to achieve a long term goal (e.g. select software to plan, design, select, present, analyse, evaluate, improve and report on a long term project) • I can evaluate feedback from a range of sources and a wider group of peers • I can confidently and independently use skills on the Key Stage 2 Key Skills List • I can design, write and debug programs and algorithms that respond to and learn from inputs • I can select and use a variety of software to solve a given problem and extend the initial scope • I can design, write and debug programs and algorithms that respond to and learn from user inputs and offer feedback to the user
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