

	Objectives Pupils should be taught to:	Outcomes across KS2				Examples & key vocabulary
		Y3	Y4	Y5	Y6	
Computer Science (Programming)	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	Understand that algorithms are implemented as programs on digital devices	Write programs that accomplish specific goals	Design programs that accomplish specific goals	Solve problems by decomposing them into smaller parts	<ul style="list-style-type: none"> • Cause & effect • Writing sets of instructions • Searching with sets of instructions • Simplify instructions, repeats • Sequencing • Checking validity • Creating games • Solving a problem • Investigating • Prediction
	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Understand that programs execute by following precise and unambiguous instructions	Use sequence in programs	Design and create programs	Use selection in programs	
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Debug simple programs	Work with various forms of input	Debug programs that accomplish specific goals	Work with variables	
	Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web	Use logical reasoning to predict the behaviour of simple programs	Work with various forms of output	Use repetition in programs	Use logical reasoning to explain how some simple algorithms work	
	Appreciate how [search] results are selected and ranked			Control or simulate physical systems	Use logical reasoning to detect and correct errors in algorithms	
				Use logical reasoning to detect and correct errors in programs	Understand computer networks, including the internet	
				Understand how computer networks can provide multiple services, such as the World Wide Web	Appreciate how search results are ranked	
			Appreciate how search results are selected		algorithm control data debug input logical reasoning output program repetition sequence simulation variables	

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Creative Technology (Multimedia & Handling Data)	<p>Use search technologies effectively</p> <p>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</p>	<p>Use technology purposefully to organise digital content</p> <p>Use technology purposefully to manipulate digital content</p>	<p>Use search technologies effectively</p> <p>Use a variety of software to accomplish given goals</p> <p>Collect information</p> <p>Design and create content</p> <p>Present information</p>	<p>Select a variety of software to accomplish given goals</p> <p>Select, use and combine internet services</p> <p>Analyse information</p> <p>Evaluate information</p> <p>Collect data</p> <p>Present data</p>	<p>Combine a variety of software to accomplish given goals</p> <p>Select, use and combine software on a range of digital devices</p> <p>Analyse data</p> <p>Evaluate data</p> <p>Design and create systems</p>	<ul style="list-style-type: none"> • pictures or illustrations • websites • films • animations • podcasts • photos/photo montages • blogs • wikis • music and song • audio-visual presentations • interactive maps • Graphs • Models • learning diaries • animations • online Content <p>data</p> <p>digital content</p> <p>information</p> <p>internet</p> <p>search</p> <p>selection</p> <p>services</p> <p>simulation</p> <p>software</p> <p>World Wide Web</p>

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Digital Literacy (Technology in our lives and online safety)	Understand the opportunities [networks] offer for communication and collaboration	Online Safety: on-going modelling and talking about safe and responsible use of technology One discrete lesson a term (x6 per year)				<ul style="list-style-type: none"> • Communications - online & offline • Collaboration • Safety • Effectiveness • Evaluation • Copyright • Data security • Search & validate • Online behaviours digital content information internet search selection services software variables World Wide Web
	Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable / unacceptable behaviour; identify a range of ways to report concerns about content and contact	Use technology respectfully Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	Use technology responsibly Identify a range of ways to report concerns about contact	Understand the opportunities computer networks offer for communication Identify a range of ways to report concerns about content Recognise acceptable / unacceptable behaviour	Understand the opportunities computer networks offer for collaboration Be discerning in evaluating digital content	

	Year 3	Year 4	Year 5	Year 6
Spiritual	<p>Use of internet to research the spiritual aspects of different religions within the RE curriculum - Christianity</p> <p>Explore creativity and imagination in the design and construction of digital products. E.g. using Prezi / PowerPoint</p>	<p>Use of internet to research the spiritual aspects of different religions within the RE curriculum - Hinduism</p> <p>Promote self-esteem through the presentation of your work to others. Share own ICT games / presentations created with class.</p>	<p>Use of internet to research the spiritual aspects of different religions within the RE curriculum - Judaism</p> <p>Explore how ideas in computing have inspired others. Link to famous scientists / Leonardo da Vinci topic.</p>	<p>Use of internet to research the spiritual aspects of different religions within the RE curriculum - Islam</p> <p>Create digital products which incorporate your beliefs e.g. a PowerPoint / Prezi showing main aspects of a religion.</p>

	Year 3	Year 4	Year 5	Year 6
Moral	<p>Within online safety. The rights and wrongs of issues related to cyber bullying as part of online safety teaching.</p> <p>Password security - not using another person's password to access devices / material / information.</p> <p>Encourage good etiquette when using digital technology including mobile devices and with due regard to Online Safety.</p> <p>Encourage respect for other people's views and opinions.</p> <p>Encourage respect for the ICT suite and other technology and the equipment you use and how this affects others.</p>	<p>Within online safety. The rights and wrongs of issues related to cyber bullying as part of online safety teaching.</p> <p>Password security - not using another person's password to access devices / material / information.</p> <p>Encourage good etiquette when using digital technology including mobile devices and with due regard to Online Safety.</p> <p>Encourage respect for other people's views and opinions.</p> <p>Encourage respect for the ICT suite and other technology and the equipment you use and how this affects others.</p>	<p>Within online safety. The rights and wrongs of issues related to cyber bullying as part of online safety teaching.</p> <p>Password security - not using another person's password to access devices / material / information.</p> <p>Why it is important to ensure content you post online is accurate and reliable and not misleading.</p> <p>Explore moral issues around the around the use of digital technology - For example, copyright and plagiarism.</p> <p>Encourage respect in the use of digital equipment and its impact on the environment - for example, ink and paper wastage.</p>	<p>Within online safety. The rights and wrongs of issues related to cyber bullying as part of online safety teaching.</p> <p>Password security - not using another person's password to access devices / material / information.</p> <p>Why it is important to ensure content you post online is accurate and reliable and not misleading.</p> <p>Explore moral issues around the around the use of digital technology - For example, copyright and plagiarism.</p> <p>Encourage respect in the use of digital equipment and its impact on the environment - for example, ink and paper wastage.</p>

	Year 3	Year 4	Year 5	Year 6
Social	<p>The use of technologies to allow for online collaboration. e.g. email, Skype, ConferenceMe</p> <p>Online safety - appropriate and inappropriate use of Social media</p> <p>Encourage students to assist one another in problem solving.</p> <p>Encourage appropriate social behaviours in the classroom including listening whilst others are talking and generally interacting as caring a community.</p>	<p>The use of technologies to allow for online collaboration. e.g. email, Skype, ConferenceMe</p> <p>Online safety - appropriate and inappropriate use of Social media</p> <p>Encourage students to assist one another in problem solving.</p> <p>Encourage appropriate social behaviours in the classroom including listening whilst others are talking and generally interacting as caring a community.</p>	<p>The use of technologies to allow for online collaboration. e.g. email, Skype, ConferenceMe</p> <p>Online safety - appropriate and inappropriate use of Social media Encourage good practice and respect in the use of social networking.</p> <p>Encourage students to assist one another in problem solving.</p> <p>Encourage appropriate social behaviours in the classroom including listening whilst others are talking and generally interacting as caring a community.</p>	<p>The use of technologies to allow for online collaboration. e.g. email, Skype, ConferenceMe</p> <p>Online safety - appropriate and inappropriate use of Social media Encourage good practice and respect in the use of social networking.</p> <p>Encourage students to assist one another in problem solving.</p> <p>Encourage appropriate social behaviours in the classroom including listening whilst others are talking and generally interacting as caring a community.</p>
Cultural	<p>Encourage the sensible use of digital technology in the classroom and homework situations given that you are currently living in a digitally cultural environment.</p>	<p>Encourage the sensible use of digital technology in the classroom and homework situations given that you are currently living in a digitally cultural environment.</p>	<p>Encourage an awareness and appreciation of the digital divide and to be aware of differing cultural and spiritual or religious views towards the use of digital technology.</p>	<p>Encourage an awareness and appreciation of the digital divide and to be aware of differing cultural and spiritual or religious views towards the use of digital technology.</p>