



Subject Progression: Computing

	Y1	Y2	Y3	Y4	Y5	Y6
Computer science	<p>I can create a series of instructions.</p> <p>I can plan a journey using a programmable toy.</p>	<p>I can use a range of instructions.</p> <p>I can test and amend a set of instructions.</p> <p>I can spot and correct mistakes in a program (debug).</p> <p>I can write a simple program and test it.</p> <p>I can predict what the outcome of a simple program will be.</p> <p>I understand that algorithms are used on digital devices.</p> <p>I understand that programs require precise instructions.</p>	<p>I can design a sequence of instructions, including directional instructions.</p> <p>I can write a computer program for an animation.</p> <p>I can correct my mistakes in a program.</p> <p>I can create sound and graphics for my animation.</p> <p>I can make a simple drawing program work better.</p> <p>I can try out different variables in a simulator game's program.</p> <p>I can describe how a simple math program works.</p> <p>I can describe how a simple drawing program works.</p> <p>I can describe how the dialogue in a program works.</p> <p>I can correct a program so the animation is more realistic.</p> <p>I can explain how to correct 'bugs' in a program.</p>	<p>I can experiment with variable to control models.</p> <p>I can design and develop an interactive educational game.</p> <p>I can give an on-screen robot specific instructions that takes them from A to B.</p> <p>I can include sound in my game.</p> <p>I can debug a program and correct mistakes in my game.</p> <p>I can explain how the algorithm of my game works.</p> <p>I can design a toy with computer-controlled input and output.</p> <p>I can write a program to show how my toy would produce output.</p>	<p>I can combine sequences of instructions and procedures to create a game/picture/image.</p> <p>I can create and add music in my game.</p> <p>I can find mistakes and correct them in my game.</p> <p>I can break my game down and work on separate parts.</p> <p>I can animate my characters by creating difference graphics for them.</p> <p>I can send and receive messages in Morse code and semaphore.</p> <p>I can create and decode secret messages using the Caesar and substitution ciphers.</p> <p>I can explain the algorithm for the Caesar cipher.</p> <p>I can talk about why secret code sometimes needs to be used when using the web.</p> <p>I can create computer generated images.</p> <p>I can use Scratch to create complicated geometric shapes.</p>	<p>I can plan and create and text-based adventure.</p> <p>I can design a solution by breaking a problem up.</p> <p>I recognise that different solutions can exist for the same problem.</p> <p>I can use logical reasoning to detect errors in algorithms.</p> <p>I can use selections in programs.</p> <p>I can work with variables.</p> <p>I can write a simple program.</p> <p>I can use an algorithm for different purposes.</p> <p>I can debug.</p> <p>I can use random, linear and binary search to play a game.</p>
Information technology	<p>I can create digital content.</p> <p>I can store digital content.</p> <p>I can retrieve digital</p>	<p>I can generate digital material using different programs.</p> <p>I can edit my work using the tools in the program.</p>	<p>I can use a range of software for similar purposes.</p> <p>I can collect information.</p> <p>I can design and create</p>	<p>I can select software to accomplish given goals.</p> <p>I can present data.</p> <p>I can use a spreadsheet to input data.</p>	<p>I can analyse information found on the internet.</p> <p>I can evaluate information I find.</p>	<p>I can select, use and combine software on a range of digital devices.</p> <p>I can use a range of technology for a specific</p>

	<p>content.</p> <p>I can check my work for errors.</p> <p>I can use a website to find information.</p> <p>I can use a camera.</p> <p>I can record sound and play back.</p>	<p>I can save and retrieve my work.</p> <p>I can use websites to research information I need to help me with my work.</p> <p>I can use external devices to support my work which also involves sound.</p>	<p>content.</p> <p>I can present information.</p> <p>I can search for information on the web in different ways.</p> <p>I know search results are based on the key words I type in.</p> <p>I know Google shows the most relevant results at the top.</p> <p>I can manipulate and improve digital images.</p> <p>I can move information between different applications.</p>	<p>I can create a simple chart.</p> <p>I can explain how technology can be used to create music.</p> <p>I can use sequencing software to create a piece of music.</p> <p>I can record my own sound samples.</p> <p>I can mix sound samples to create a piece of music.</p> <p>I can use software that uses notation.</p> <p>I can see how the internet and web are different.</p> <p>I can see that web pages are written in HTML.</p> <p>I can use some HTML tags.</p> <p>I can edit the HTML for a web page.</p> <p>I can create web pages that keep another person's details private.</p> <p>I can create a web page by writing HTML.</p> <p>I can explain how important links are for the web.</p> <p>I can find and read an article on Wikipedia.</p> <p>I can create and edit content for a wiki.</p> <p>I can research information.</p> <p>I can explain the importance of Wikipedia's fundamental principles 'five pillars'.</p>	<p>I can name and use other search engines.</p> <p>I can credit others' information I use.</p> <p>I can use programs to create a 2D and 3D space for a specified use.</p> <p>I can add textures and finishing touches (including furniture) to improve it.</p> <p>I can add content to my space.</p> <p>I can edit my virtual tour.</p>	<p>project.</p> <p>I can import footage.</p> <p>I can produce a video.</p> <p>I can use the advanced tools in video editing software.</p> <p>I understand how information can be represented digitally on computers.</p> <p>I can name and describe some of the hardware that connects computers.</p> <p>I can talk about how my classroom computer is linked to a web server.</p> <p>I can describe how data passes across the internet.</p> <p>I can use the ping, opconfig and tracert commands.</p>
<p>Digital literacy (including E-safety)</p>	<p>I can use technology safely.</p> <p>I can keep personal</p>	<p>I use technology respectfully.</p> <p>I know where to go for</p>	<p>I use technology respectfully and responsibly.</p>	<p>I recognise acceptable and unacceptable behaviour using</p>	<p>I understand that you have to make choices when using technology</p>	<p>I can discuss the risks of online use of technology.</p> <p>I can identify how to</p>

	<p>information private. I follow the school's safer internet rules. I know to talk to a trusted adult if I find something I am unsure of.</p>	<p>help if I am concerned. I know how technology is used in school and outside of school. I know how important it is to type an email address correctly. I follow the school's safer internet rules. I understand different methods of communication. I can see if an email and an attachment are from someone I know or trust. I know that I must always be careful about opening emails and attachments. I can use the search engines agreed by the school.</p>	<p>I know different ways I can get help if I am concerned. I understand what computer networks do and how they provide multiple services. I can decide when it is best to use technology and where it adds little or no value. I can use email and video conferencing to communicate. I follow the school's safer internet rules. I understand the rules to keep me safe when exchanging learning ideas online. I recognise that information on the internet may not always be true. I understand the need to keep personal information private online. I can use emails safely.</p>	<p>technology. I follow the school's safer internet rules. I use strategies to verify information found online. I understand the need for caution when using internet search for images and what to do if I find an unsuitable image. I understand that if I make personal information available online it may be seen or used by others.</p>	<p>and that not everything is true and/or safe. I can competently use the internet as a search tool. I can use knowledge of the meaning of different domain names and common website extensions (.co.uk, .com, .gov, .ac, .org, .sch...) I can write a blog post. I can comment on a blog post. I can edit blog posts. I can add different media into my blog post. I follow the school's safer internet rules. I can discuss the positive and negative impact of the use of ICT in my own life, my friends & family. I understand the potential risk of providing personal information online. I can use technology in ways which minimises risk. I understand the importance of keeping passwords secret. I can see how important it is to create secure, hard-to-guess passwords. I understand the benefits of developed a 'nickname' for online use. I know how to report any suspicions.</p>	<p>minimise risks. I can publish online resources. I can produce text and media to produce online content. I follow the school's safer internet rules. I recognise the need to be critical evaluators of content. I understand that some websites and/or pop-ups have commercial interests that may affect the way the information is presented. I understand some material on the internet is copyrighted and may not be copied or downloaded. I understand some messages may be malicious and know how to deal with this. I know it is unsafe to arrange to meet unknown people online. I can make safe choices about the use of technology. I can create strong passwords and manage them so that they remain strong.</p>
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