

Key Stage 1 Computing Progression: Being a Computer User

| Year 1 | Year 2 |
|---|--|
| <p>Programming: Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</p> | |
| <p>I can talk about and understand that devices and software can be controlled by buttons.</p> <p>I can talk about and understand that devices and actions on screen may be controlled by single step commands.</p> <p>I can create a series of instructions.</p> <p>I can plan a journey for a programmable toy.</p> | <p>I can use a range of instructions (e.g. direction, angles, turns).</p> <p>I can test and amend a set of instructions, finding errors and debugging.</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 (logical reasoning).</p> <p>I understand that algorithms are used on digital devices.</p> <p>I understand that programs require precise instructions.</p> |
| <p>Information Technology: Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> | |
| <p>I can use a web site and begin to use tools to navigate web pages (e.g. scroll, back button, hyperlink) to find answers to questions.</p> <p>I can create, store and retrieve digital content.</p> <p>I can use a camera.</p> <p>I can record sound and play back.</p> | <p>I can recognise and talk about different sorts of digital content, information and data.</p> <p>I can use a range of devices to access digital content.</p> <p>I can organise digital content.</p> <p>I can retrieve and manipulate digital content.</p> <p>I can navigate the web to complete simple searches.</p> |
| <p>Digital Literacy: Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| <p>I follow the school's safer internet rules.</p> <p>I can talk about the difference between real and imaginary experiences on the computer and with technology.</p> <p>I know some of the ways of keeping safe when using the Internet.</p> <p>I know that the Internet can be used to communicate and I can keep personal information private.</p> <p>I know of different methods of communication (e.g. email, blogs, facetime etc).</p> <p>I know that it is not always allowed to copy text and pictures from the internet.</p> | <p>I follow the school's safer internet rules.</p> <p>I can access content/learning spaces using a simple password</p> <p>I am beginning to use the Internet to communicate safely and respectfully</p> <p>I can send and receive email as a class and know the difference between email and communication systems such as blogs and wikis.</p> <p>I know how technology is used in school and outside of school.</p> <p>I have begun to evaluate websites and know that not everything on the internet is true.</p> <p>I know that bookmarking is a way to find safe sites again quickly.</p> |

Key Stage 2 Computing Progression: Being a Computer User

| Year 3 | Year 4 | Year 5 | Year 6 |
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| Design, write & debug programs that accomplish spec. goals, incl. controlling or simulating physical systems; solve problems by decomposing into smaller parts. Use sequence, selection and repetition in progs; work with variables and various forms of input/output. Use logical reasoning to explain how simple algorithms work and detect and correct errors. | | | |
| <p>I can design a sequence of instructions, including directional instructions.</p> <p>I can write programs that accomplish specific goals.</p> <p>I can work with various forms of input.</p> <p>I can work with various forms of output.</p> <p>I understand that different sequences of actions can achieve the same outcome.</p> <p>I can recognise and use repeat instructions.</p> | <p>I can experiment with variables to control models.</p> <p>I can give an on-screen robot specific instructions that takes them from A to B. (Yr5)</p> <p>I can make an accurate prediction and explain why I believe something will happen</p> <p>I can de-bug a program. (Yr5)</p> <p>I understand that efficient procedures are important and build them to carry out specific outcomes. (Yr5)</p> | <p>I can combine sequences of instructions and procedures to turn devices on and off.</p> <p>I can use technology to control an external device.</p> <p>I can design algorithms that use repetition & 2-way selection.</p> <p>I can begin to use sensors that cause an outcome.</p> <p>I can group together instructions to solve problems and achieve specific outcomes.</p> | <p>I can develop, test and refine procedures, including using variables and sensors, for greater efficiency.</p> <p>I recognise that different solutions can exist for the same problem.</p> <p>I can explain how an algorithm works and use logical reasoning to detect errors.</p> <p>I can explore 'what if' questions by planning different scenarios for controlled devices.</p> |
| Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (inc. internet services) on a range of devices to design/create a range of programs, systems and content that accomplish given goals, inc. collecting, analysing, evaluating and presenting data and information. | | | |
| <p>I can use a range of software to accomplish given goals</p> <p>I can collect and present information.</p> <p>I can use menus, indexes, search tools and key words to find particular information on a website knowing that this is the World Wide Web and part of the internet.</p> <p>I can design and create content.</p> <p>I can manipulate and improve digital images.</p> <p>I can talk about and question the relevance and reliability of content on the World Wide Web.</p> | <p>I can select and use software to accomplish given goals.</p> <p>I can collect and present data.</p> <p>I can produce and upload a pod cast.</p> <p>I can think about who owns content online and use tools to include or link from my own work as appropriate.</p> <p>I recognise that information on the internet may not be accurate or reliable and may be used for bias, manipulation or persuasion.</p> | <p>I can select and use software on a range of digital devices to accomplish given goals.</p> <p>I can collect and present data, selecting appropriate style of presentation for given audience.</p> <p>I can analyse and evaluate information.</p> <p>I can understand and describe how search results are selected and ranked and use this to evaluate their usefulness.</p> <p>I can use tools and conventions to make searching more efficient (e.g. quotation marks)</p> <p>I can edit a film.</p> | <p>I can select, use and combine software on a range of digital devices for a specific project.</p> <p>I can use tools to process information from a range of sources to use in my own work. (e.g. notetaking, mindmaps, validity bias)</p> <p>I can begin to understand copyright and acknowledge where content has come from and reference sites in my own work (e.g. hyperlink to sites)</p> |
| Understand computer networks including the internet; how they provide multiple services, eg the world wide web; the opportunities they offer for communication and collaboration. | | | |
| <p>I understand what computer networks do and how they provide multiple services.</p> <p>I can discern where it is best to use technology and where it adds little or no value.</p> <p>I can save work on devices, the school network and the Internet as appropriate</p> <p>I can recognise there are different search engines.</p> <p>I understand that the outcome of internet searches at home may be different than at school</p> | <p>I can hyperlink to relevant content stored locally and online.</p> <p>I can begin to use appropriate tools to collaborate and communicate on the Internet.</p> <p>I know the difference between online communication tools used in school and those used at home.</p> | <p>I understand the opportunities computer networks and internet offer for communication.</p> <p>I can connect a computing device to a keyboard, mouse or printer.</p> <p>I can describe different parts of a computing device and how it connects to the Internet.</p> | <p>I can describe different services provided by the Internet and how information moves around the Internet.</p> <p>I can select and use a variety of methods to communicate and collaborate.</p> <p>I can use knowledge of the meaning of different domain names and common website extensions (e.g. .co.uk; .com; .ac; .sch; .org; .gov; .net) to support validation of information.</p> |
| Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | | | |
| <p>I follow the school's safer internet rules.</p> <p>I use technology respectfully and responsibly.</p> <p>I know different ways I can get help if I am concerned.</p> <p>I understand that if I make personal information available online it may be seen and used by others.</p> <p>I understand the need to develop an alias for some public online use.</p> | <p>I follow the school's safer internet rules.</p> <p>I understand that copyright exists and recognise the difference between the work of others which has been copied (plagiarism) and re-structuring and re-presenting materials in ways which are unique and new.</p> <p>I can explain and demonstrate how to use email safely. advice</p> | <p>I follow the school's safer internet rules.</p> <p>I can discuss the positive and negative impact of the use of ICT in my own life, my friends and family.</p> <p>I understand that some material on the internet is copyrighted and may not be copied or downloaded.</p> <p>I know that content put online is extremely difficult to remove.</p> <p>I know how to report abuse of online safety</p> | <p>I follow the school's safer internet rules.</p> <p>I understand that online environments have security settings, which can be altered, to protect the user.</p> <p>I understand I should not publish other people's pictures or tag them on the internet without permission.</p> <p>I can create strong passwords and manage them so that they remain strong.</p> <p>I understand what phishing is.</p> <p>I am aware of the need for authentication.</p> |