**Computing Skills Progression**

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|  | KS1 | LKS2 | UKS2 |
| Computer Science | I understand what algorithms are and how they are implemented as programs on digital devices. | I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. | I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. |
| I understand that programs execute by following precise and unambiguous instructions.  | I can solve problems by decomposing them into smaller parts.  | I can solve problems by decomposing them into smaller parts.  |
| I can create a simple program. | I can experiment with various coding structures e.g. selection (‘if’ statements), repetition (repeat commands and timers) and variables. | I can use sequence, selection and repetition in programs; work with variables and various forms of input and output. |
| I can debug a simple program. | I can identify errors in more complex code. | I can test and debug my program, using logical methods to identify the cause of any bug. |
| I can use logical reasoning to predict the behaviour of simple programs.  | I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  | I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. |
|  | I can list a range of ways the internet can be used for communication and use some of these methods e.g. email. | I can select the most appropriate form of online communications contingent on audience and digital content, e.g. email, blog etc. |
|  | I recognise the main components of hardware which allow computers to join and form a network. | I understand the value of computer networks but also the main dangers. I know what personal information is and can explain how this can be kept safe.  |
|  |  | I understand and can explain the difference between the internet and the World Wide Web.  |
| Information Technology | I can use a range of technology purposefully to create, organise and store simple digital content e.g. name and save my work, follow simple instructions to access online resources, organise data using a simple database etc. | I can carry out simple searches to retrieve digital content. I understand that to do this I am connecting to the internet. | I can search with greater complexity for digital content when using a search engine e.g. applying a filter. I can explain in some detail how credible a webpage is and the information it contains. |
| I can use a range of technology purposefully to retrieve and manipulate digital content e.g. finding, editing and resaving my work. | I can create purposeful content to attach to emails or share with my community e.g. digital display boards. | I can collaboratively create content and solutions using digital features within software. I can use several ways of sharing digital content, e.g. email, blog, digital display boards etc. |
| I can use a range of media in my digital content e.g. photos, text and sound. | I can collect, analyse, evaluate and present data and information using a selection of software. I can consider what software is most appropriate for a given task. | I can make appropriate improvements to digital solutions based on feedback received and can objectively review solutions from others. |
| Digital Literacy | I recognise common uses of information technology beyond school.  |  |  |
| I know the importance of keeping my personal information private. | I know the importance of using secure passwords and can explain the implications of failure to keep my password safe. | I can relate appropriate online behaviour to my right to personal privacy and mental wellbeing of myself and others. |
| I know where to go for help when I have concerns about content or contact on the internet or other online technologies. | I understand the importance of conduct when using communication tools and can recognise acceptable / unacceptable behaviour. I know a number of ways to report unacceptable content and contact | I have a secure knowledge of online safety rules and can apply this by demonstrating safe and respectful use of different technologies. |