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|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| **E-Safety** | Pupils should be taught to 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 their online technologies. | Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content. |
| understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies | use technology safely and keep personal information private | use technology safely and respectfully, keeping personal information private use technology safely and recognise acceptable and unacceptable behaviour | use technology responsibly and understand that communication online may be seen by others | Understand the need to only select age appropriate content | use technology respectfully and responsibly identify a range of ways to report concerns about content and contact in and out of school |
| **Programming** | Pupils should be taught to 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 | Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 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. |
| understand what algorithms are and how they are implemented on digital devices predict the behaviour of simple programs | use logical reasoning to predict the behaviour of simple programs create simple programs debug simple programs by using logical reasoning to predict the actions instructed by the code understand that programs execute by following precise and unambiguous instruction | design, write and debug programs that control or simulate virtual events use logical reasoning to explain how some simple algorithms work | decompose programs into smaller parts use logical reasoning to detect and correct errors in algorithms and programs select, use and combine a variety of software, systems and content that accomplish given goals | design, input and test an increasingly complex set of instructions to a program or device design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated design, write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user use logical reasoning to explain how increasingly complex algorithms work to ensure a program’s efficiency | include use of sequences, selection and repetition with the hardware used to explore real world systems solve problems by decomposing them into smaller parts create programs which use variables use variables, sequence, selection and repetition programs use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently |
| **Media** | Pupils should be taught to use technology purposefully to create, organise and manipulate digital content. | Pupils should be taught to 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 |
| use technology to purposely create digital content | use technology to purposely create, organise, store, manipulate and retrieve digital content use technology to purposely create digital content comparing the benefits of different programs | recognise familiar forms of input and output devices and how they are used make efficient use of familiar forms of input and output devices with support select and use a variety of software to accomplish goals | use other input devices such as cameras or sensors with support select and use a variety of software on a range of digital devices with support select, use and combine a variety of software on a range of digital devices to accomplish given goals | independently select and use appropriate software for a task independently select, use and combine a variety of software to design and create content for a given audience | independently select, use and combine a variety of software to design and create content for a given audience, including collecting, analysing, evaluating and presenting data and information design and create a range of programs, systems and content for a given audience independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information |
| **Understanding Technology** | Pupils should be taught to use technology purposefully to store and retrieve digital content and to recognise common uses of information technology beyond school. | Pupils should be taught to understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. |
| recognise common uses of information technology in the home and school environment | recognise common uses of information technology beyond school | understand that computer networks enabling the sharing of data and information understand that the internet is a large network of computers and that information can be shared between computers use simple search technologies use simple search technologies and recognise that some sources are more reliable than others | understand what services are and how they provide services to a network understand how results are selected and ranked by search engines | begin to use internet services to share and transfer data to a third party use filters in search technologies effectively use filters in search technologies effectively and appreciate how results are selected and ranked | understand how computer networks enable computers to communicate and collaborate begin to use internet searches within his/her own creations to share and transfer data to a third part use filters in search technologies effectively and is discerning when evaluating digital content |