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| **Subject Content and Endpoints – Computing**  |
| Early Years  |
| All pupils in the EYFS are given many opportunities to use technology to solve problems and produce creative outcomes part of the play-based learning covered during the academic year. EYFS is underpinned by the following three prime areas outlined in the ‘Statutory framework for the Early Years Foundation Stage’ (2021): • Communication and language • Physical development • Personal, social and emotional developmentThere are four specific areas through which the three prime areas are strengthened and applied: • Literacy • Mathematics • Understanding the world  • Expressive arts and design By the end of EYFS, computing will underpin and enhance these areas. Pupils will be able to be able to control a range of ‘toys’ using remote controls and will have explored the commands needed to control a range of electronic toys, to achieve a specific outcome. They will be able to use step by step commands to program a floor robot to move and will use basic symbols. They will be able to use shortcuts to reach a particular website or app and tell an adult if they feel something is inappropriate. With support they will be able to use a range of information technology such as a whiteboard for mark making or sorting objects, a digital camera to capture images, begin to use a keyboard and record and play back sounds. They will be able to produce simple digital pictograms. In addition to this they will be aware of everyday devices that sense data, e.g. bar codes, metal detectors, automatic doors, light sensors. |
| Key Stage 1 |
| By the end of Key Stage 1, pupils understand what algorithms are and how they are implemented as programs on digital devices. They can create and debug simple programs and use logical reasoning to predict their behaviour. They can use technology purposefully to create, organise, store, manipulate and retrieve digital content and recognise common uses of information technology beyond school. They are beginning to know how to use technology safely and respectfully, keeping personal information private. They can identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.  |
| Lower Key Stage 2 |
| By the end of Y4 pupils can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. They can solve problems by decomposing them into smaller parts and use sequence, selection, and repetition in programs. Pupils know the different types of information available on the internet and can use keywords to find information. They can select, use and combine a variety of software (including internet services) on a range of digital devices. They can move images from one app to another, record a video and upload to another program. They can sort data with a branching database and use a pre-prepared spreadsheet. They know the difference between personal and private data when online and ensure they have strong passwords. They are beginning to recognise unacceptable behaviour on the internet and can relate to behaviour in the real world.  |
| Upper Key Stage 2 |
| By the end of KS2 pupils can work with variables and various forms of input and output and use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Pupils understand computer networks including the internet and how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Pupils can use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. They can 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. They know how to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |