



STEETON PRIMARY SCHOOL

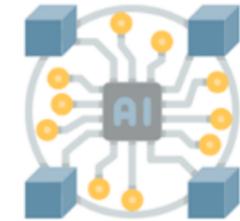
COMPUTING CURRICULUM



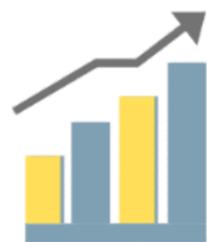
**COMPUTING SYSTEMS
AND NETWORKS**



CREATING MEDIA A



PROGRAMMING A



DATA AND INFORMATION



CREATING MEDIA B



PROGRAMMING B

COMPUTING CURRICULUM AT STEETON PRIMARY SCHOOL

INTENT

At Steeton Primary School, it is our computing curriculum intent to prepare our children for their future, by giving them the opportunities to gain knowledge and develop skills that will equip them for an ever-changing digital world, which is embedding our school motto 'Learning for Life'. The National Curriculum 'Programme of Study' for computing is taught in KS1 and KS2 fully. The 12 pedagogy principles for computing outlined by the National Centre for Computing Education are embedded into the computing curriculum at Steeton Primary School, through following a systematically planned curriculum from 'Teach Computing' which has been adapted to meet the needs of our children and school, meaning children will know more, remember more and be able to do more. We have planned an ambitious, high quality computing curriculum that meets the needs of our children and school. Our staff have had computing CPD sessions, which is on-going and we have been supported by the National Centre for Computing Education through our local Computing Hub.

Our computing curriculum focuses on a progression of skills and knowledge, with end of phase expectations. Our six computing concepts are taught in all phases and are taught progressively through objectives that support the development of learning across the different phases. Our curriculum design ensures that these concepts have a balanced coverage over the year. By the time children leave Steeton Primary School for their secondary education, children will have secured their knowledge and skills in all six concepts and be ready for the next chapter in their computing education but also be equipped for using some elements of computing in their everyday lives. Computing skills are used across our full curriculum, not only in computing lessons, as children are given opportunities to use the knowledge and skills they have learnt in their computing lessons in 'real life' situations. We use our iPads in many other National Curriculum lessons where appropriate.

IMPLEMENTATION

Children have opportunities to develop their 'Computational Thinking' in the EYFS (through Barefoot Computing resources). 'Computational Thinking' is further in KS1 and KS2 progressively. Teaching of computing at Steeton Primary School ensures that the National Curriculum is followed and implemented fully. Computing lessons are taught in blocks of 2 hours at a time as a discreet lesson. Skills that have been taught in computing lessons may also be practiced and embedded into other National Curriculum subjects, as a cross-curricular tool.

All lessons and teaching are based on one of our 6 concepts:



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The curriculum is taught by implementing one programme of study for two different year groups, over two half terms (please see 'Computing Overview'). It allows us to develop a curriculum that suits the needs of our school. The objectives provide an 'end point' for the programme of study they are currently studying (for each phase). Children are given access to a wide range of high-quality resources throughout the curriculum alongside well planned sequences of lessons.

Children will take screenshots of their work on their iPad and save it into their named folder on SeeSaw. Children will be given opportunity to show their knowledge and understanding of the work completed by annotating screenshots of the work they have completed over the half term, to embed their knowledge.

In addition to the six computing concepts we also develop children's understanding of how to keep safe online. Internet safety is adopted and promoted throughout school in a number of ways. Through assemblies, taught explicitly through stand-alone lessons and through 'Safer Internet Day'. During the year children are routinely taught and reminded about good practice whenever appropriate throughout the curriculum and to always share any online concerns with a trusted adult at school and in their wider lives.

IMPACT

When children leave Steeton Primary School, they are competent and safe computing users with an understanding of how technology works. They will have developed skills to express themselves and be creative in using digital media and be equipped to apply their skills in computing to different challenges going forward. At the end of each phase children are ready for the next phase of their computing curriculum and are secure in the age-related skills and knowledge set out in the National Curriculum. Pupils do not need to be assessed formally after every unit of work, however teachers assess children's learning in every lesson and give support and challenge where appropriate.

Pupils at Steeton Primary School have a positive and enthusiastic attitude towards computing. They enjoy using technology and learning about computing in their lessons. Computing is discussed in Phase and Leadership Curriculum Impact Meetings and parents are kept informed of their child's progress at parents' evenings, through school reports and work is celebrated through School Ping.

COMPUTING NATIONAL CURRICULUM AND EYFS STATUTORY FRAMEWORK

EYFS

Children develop their 'Computational Thinking' through Barefoot Computing resources.

Key Stage 1

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
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- 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.

Key Stage 2

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
- 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
- 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 safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

STEETON PRIMARY SCHOOL COMPUTING OVERVIEW

| YEAR A | Concepts taught in units | KSI | LKS2 | UKS2 |
|----------|--------------------------------|--------------------------------|--------------------------------|---|
| Autumn 1 | Computing Systems and Networks | Year 1 Technology around us | Year 3 Connecting computers | Year 5 Sharing information |
| Autumn 2 | | Year 2 IT around us | Year 4 The Internet | Year 6 Communication |
| Spring 1 | Creating Media A | Year 1 Digital painting | Year 3 Animation | Year 5 Video editing |
| Spring 2 | | Year 2 Digital photography | Year 4 Audio editing | Year 6 Webpage creation |
| Summer 1 | Programming A | Year 1 Moving a robot | Year 3 Sequence in music | Year 5 Selection in physical computing |
| Summer 2 | | Year 2 Robot algorithms | Year 4 Repetition in shapes | Year 6 Variables in games |

| YEAR B | Concepts taught in units | KSI | LKS2 | UKS2 |
|----------|--------------------------|--------------------------------------|-------------------------------|--------------------------------|
| Autumn 1 | Data and Information | Year 1 Grouping data | Year 3 Branching databases | Year 5 Flat-file databases |
| Autumn 2 | | Year 2 Pictograms | Year 4 Data logging | Year 6 Spreadsheets |
| Spring 1 | Creating Media B | Year 1 Digital writing | Year 3 Desktop publishing | Year 5 Vector drawing |
| Spring 2 | | Year 2 Making music | Year 4 Photo editing | Year 6 3D modelling |
| Summer 1 | Programming B | Year 1 Introduction to animation | Year 3 Events and actions | Year 5 Selection in quizzes |
| Summer 2 | | Year 2 An introduction to quizzes | Year 4 Repetition in games | Year 6 Sensing |