



# Sandy Lane Primary School

## computing curriculum



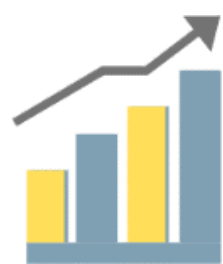
Computing systems  
and networks



creating media a



programming a



data and information



creating media b



programming b

# Computing curriculum at Sandy Lane Primary School

## Intent

At Sandy Lane Primary School we want pupils to be MASTERS of technology and not slaves to it. Technology is everywhere and will play a pivotal part in children's lives. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology (including social media) to model positive use.

Overall, our children will be enthusiastic Computing learners and understand how important computing is in the world. We want to empower our children so they understand they have the capability to change our world.

## 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 Sandy Lane 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:



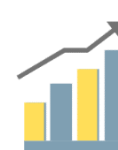
Computing systems and networks



Creating media a



Programming A



Data and information



Creating media b



Programming B

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 Sandy Lane 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 Sandy Lane 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.

## Computing Vocabulary

<u>KS1</u>	<u>LKS2</u>	<u>UKS2</u>	
Rules Online Private information Email Appropriate/inappropriate sites Cyber-bullying Digital footprint Keyword searching Instructions Buttons Robots Patterns Program Forward Backward Right-angle turn Algorithm Sequence Debug Predict Videos Camera stills Sounds Image bank Word bank Space bar Paint effects Templates Animation Documents Index finger typing Enter/return Caps lock Backspace Purpose Online tools Communicate Information sources Communication Purposes Website content	E-safety rules Secure passwords Report abuse button Gaming Blogs Sequence instructions Sequence debugging Test + improve Logo commands Sequence programming Type + edit logo commands Sensors Open-ended problems Bugs in programs Complex programming Multimedia Presentations Alignment Brush size Repeats Reflections Green screening Amend Copy Paste Creating + modifying Specific purpose Photo modifying Keyboard shortcuts Bullet points Spell check Constructive feedback	Responsible online communication Informed choices Virus threats Blogs Messaging Explore procedures Refine procedures Variable Hardware + software control Change inputs Different outputs Articulate solutions Commands Predicting outputs Plan, program, test & review a program Program writing Control mimics + devices Sensors Measure input Create variables Link errors Online sharing Multimedia effects Multimedia modification Transitions Hyperlinks Editing tools Refining Online sharing Appropriate online tools Audience Atmosphere Structure Copyright Information collection HTML code Storing Computing devices	Link errors Online sharing Multimedia effects Multimedia modification Transitions Hyperlinks Editing tools Refining Online sharing Appropriate online tools Audience Atmosphere Structure Copyright Information collection HTML code Storing Computing devices