



Computing Policy

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St Anne's Fulshaw CE Primary School

Intent

The curriculum for computing has four main aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- are responsible, competent, safe, confident and creative users of information and communication technology.

Implementation

Computing is taught through use of the [Teach Computing](#) curriculum. This fulfils the requirements of the National Curriculum ensuring breadth, balance, continuity and progression of the knowledge, skills and understanding required. The Teach Computing Curriculum uses the National Centre for Computing Education's computing taxonomy to ensure comprehensive coverage of the subject.

The units for Key Stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly, and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years.

See Appendix for details of delivery of curriculum across classes and year groups.

In the Early Years children have a broad, play based experience of ICT in a range of contexts. Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals.

Impact

Our computing curriculum is structured to facilitate a progression of knowledge and skills, and ensures that children can build on their understanding, as each new concept and skill is taught, with opportunities for children to revisit skills and knowledge as they progress through school.

Pupils should leave St Anne's Fulshaw with digital competence and confidence to support their progress in the next stage of their education.

Assessment

The children's work is monitored by the class teacher, with progress against objectives monitored on Insight tracking. The teacher is then clear what each child knows, understands and can do. The teacher reports this to parents in termly parents' evenings and at the end of the year in the annual school report.

As there are no nationally agreed levels of assessment for each year group, the unit assessment materials provided by the scheme are designed to be used and adapted by schools in a way that best suits our needs. The summative assessment materials inform teacher judgements around what a pupil has understood in each computing unit, and feeds into a school's assessment process.

Monitoring

The subject leader is responsible for development and evaluation of the computing curriculum and beyond, to advise and inform colleagues as necessary to ensure continuity and progression across the school.

This includes:

- supporting teachers with planning
- reviewing and updating policy as necessary
- observation of lessons and feedback
- analysing results of assessments to identify whole school strengths and weaknesses
- liaising with IT support and headteacher to ensure hardware and software is suitable

Samples of work are collected from each year group in all classes to give an overview of coverage, attainment and progression.

The subject leader will attend appropriate INSET and feed back to staff. They will also identify suitable CPD courses for other members of staff.

As appropriate, the subject leader will investigate and arrange activities and visits from specialists, in consultation with the head teacher.

SEND

Early identification of children with SEND is essential to ensure these children maximise their potential across the curriculum. Classes contain children of mixed age and ability, so a wide range of activities are planned to accommodate different needs and abilities. Adaptations are made to accommodate specific needs of individual children as appropriate.

Equal Opportunities

All children will be given equal access to the computing curriculum regardless of ability, race or gender. Class management takes account of such issues and appropriate resources are available. Adaptation and appropriateness of the task will give all children access to the curriculum.

Reviewed May 2022

Appendix

The programming units must be taught every year. They are planned for the autumn term over the course of our three-year curriculum plan.

Year A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Class 1		Using a paint package	Word processing – changing the font, colour, size of text on screen	Word processing – changing the font, colour, size of text on screen	Moving a robot – using Beebot	
Class 2	Moving a robot Beebot	Programming animations Scratch Junior	Digital painting Digital Writing	Robot algorithms Beebot	Technology Around us	Programming quizzes Scratch Junior
Class 3	Robot algorithms Beebot	Programming quizzes Scratch Junior	Sequencing sounds Scratch	Digital painting Digital Writing	Events and actions in programs Scratch	Technology / IT Around us Connecting Computers
Class 4	Repetition in shapes LOGO	Repetition in Games Scratch	3D modelling	3D modelling Sharing Information	Selection in physical computing Crumbles	Selection in quizzes Scratch
Class 5	Selection in physical computing Crumbles	Selection in quizzes Scratch	3D modelling	3D modelling Sharing Information	Variables in games Scratch	Sensing Microbit

Year B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Class 1		Using a paint package	Word processing – changing the font, colour, size of text on screen	Word processing – changing the font, colour, size of text on screen	Moving a robot – using Beebot	
Class 2	Moving a robot Beebot	Programming animations Scratch Junior	Animation Desktop Publishing	Robot algorithms Beebot	Technology Around us	Programming quizzes Scratch Junior
Class 3	Robot algorithms Beebot	Programming quizzes Scratch Junior	Sequencing sounds Scratch	Animation Desktop Publishing	Events and actions in programs Scratch	Technology / IT Around us Connecting Computers
Class 4	Repetition in shapes LOGO	Repetition in Games Scratch	Audio Editing Photo Editing The Internet	Audio Editing Photo Editing The Internet	Selection in physical computing Crumbles	Selection in quizzes Scratch
Class 5	Selection in physical computing Crumbles	Selection in quizzes Scratch	Audio Editing Photo Editing The Internet	Audio Editing Photo Editing The Internet	Variables in games Scratch	Sensing Microbit

Year C	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Class 1		Using a paint package	Word processing – changing the font, colour, size of text on screen	Word processing – changing the font, colour, size of text on screen	Moving a robot – using Beebot	
Class 2	Moving a robot Beebot	E Safety – what is e safety? Why do we need to stay safe online? How do we stay safe online?	Programming animations Scratch Junior Making Music	Robot algorithms Beebot Digital Photography	Technology Around us	Programming quizzes Scratch Junior
Class 3	Robot algorithms Beebot IT Around us	Programming quizzes Scratch Junior	Sequencing sounds Scratch Making Music	Digital Photography Branching Databases	Events and actions in programs Scratch	Connecting Computers
Class 4	Repetition in shapes LOGO E Safety and Communication	Repetition in Games Scratch	Selection in physical computing Crumbles	Selection in physical computing Crumbles	Video Editing Vector Drawing	Selection in quizzes Scratch Webpage Creation The Internet

Class 5	Selection in physical computing Crumbles and Scratch	Video Editing	Webpage Creation The Internet Online Safety – the role of influencers Communication	Video Editing Vector Drawing	Variables in games Scratch	Sensing Microbit
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Data units are to be taught in maths every year in all classes:

Classes 2 and 3: Grouping Data, Pictograms and Branching Databases

Classes 4 and 5: Data logging, Flat File Databases and Spreadsheets

Key Stage 1

By the end of Key Stage 1 children should be able 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
- Use technology safely and respectfully, keeping personal information private; know where to go for help and support when they have concerns about material on the internet
- Recognise common uses of information technology beyond school

Key Stage 2

By the end of Key Stage 2 children should be able 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 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
- Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.