

Computing Policy

Brookfield Community Primary School



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Intent, Implementation, and Impact

Intent

Our Computing curriculum aims to provide children with an ambitious and enriching education in computing. It is now more information than ever in this digital world, that children understand how to use technology positively, safely and responsibly and that they see good models of this. We want our children to see all the opportunities that are available to them through technology, equipping them to use digital devices, computational thinking, and creativity to understand the world outside of school.

The national curriculum for Computing 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, confident, and creative users of information and communication technology.

We aim to motivate and inspire children through a curriculum that stimulates, engages, and challenges all learners. Our curriculum aims to develop children to use ICT and computational thinking to create work, solve problems and develop thinking which in turn will help them to contribute to the society they live in, as adults.

Computing at Brookfield is designed to excite the children and engage them in different ways whilst still teaching the necessary knowledge, skills and understanding. Our Computing curriculum ensure effective progression across all year groups. Specific vocabulary for each unit is taught and built upon and effective questioning to communicate ideas is encouraged.

Our School Mission Statement of 'Many hearts make a school' and our Learning Powers, are at the heart of our curriculum and all that we do at Brookfield Community Primary School.

Implementation

In Computing we implement an inclusive curriculum that meets the needs of all pupils including those with special educational needs and the more able.

The curriculum is progressive and based on the needs of our children. Computing skills are built into lessons, in order to embed transferable, lifelong skills.

At the beginning of each unit, children share their prior knowledge, which informs planning and teaching. A series of stimulating lessons are planned, with clear knowledge and skills - based learning objectives and subject-specific vocabulary. End of unit assessment tasks are used to demonstrate progress, knowledge and understanding. Teachers assess learning in Computing against knowledge-based and skills-based learning objectives.

Our curriculum is delivered through highly effective 'quality first teaching' as described in the Teaching and Learning Policy. Enrichment opportunities, including inspirational visitors and exciting educational visits, provide our children with rich experiences and enhance teaching, learning and knowledge.

Impact

Our well-planned Computing curriculum ensures that children are given essential knowledge and skills. All pupils' learning is progressive, developmental, and stimulating. Teaching ensures that children develop learning powers enabling each one to be the best they can be.

Programme of Study

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.

Resources

- 8 iPads are used across school/office.
- Each classroom has between 4-6 laptops to be used for lessons.
- A school set of Chromebook is available for all classes to be used throughout the day. A timetable is used to ensure laptops are available for Computing lessons.
- Reception class has 2 PC's.
- Each classroom has a laptop connected to an interactive board or screen linked.

Roles and Responsibilities

Computing Subject Leader

- Providing leadership and vision
- Audit and maintain resources
- Updating the computing policy
- Identifying appropriate and effective staff training
- Monitoring the delivery of planning and evidence
- Monitoring the implantation of Computing scheme and overview documents
- Supporting staff with following of Teach Computing scheme
- Supporting staff in assessing the progress of their children against the age-related expectations
- Examining CPD
- Delivering staff meetings and training
- Writing and implementing the Computing action plan.

Monitoring

Monitoring termly enables the subject leader to gain an overview of Computing and ICT teaching and learning throughout the school. This will assist the school in the self-evaluation process identifying areas of strength as well as those for development. In monitoring the quality of Computing and ICT teaching and learning, the subject leader will:

- Observe teaching and learning in the classroom.
- Monitoring the use of the Computing Scheme 'Teach Computing'
- Hold discussions with teachers and children.
- Analyse children's work through Seesaw (Google slides and Busythings for certain units)

Assessment

As in all other subjects, children should be assessed and appraised of their progress in understanding and applying of computing skills. Teacher assessments of computing capability will be recorded throughout the year and reported to parents at the end of each academic year. Pupils work will be recorded on Seesaw (Google slides and Busythings for certain computing units) Formative assessment occurs on a lesson-by-lesson basis determined by the aims.