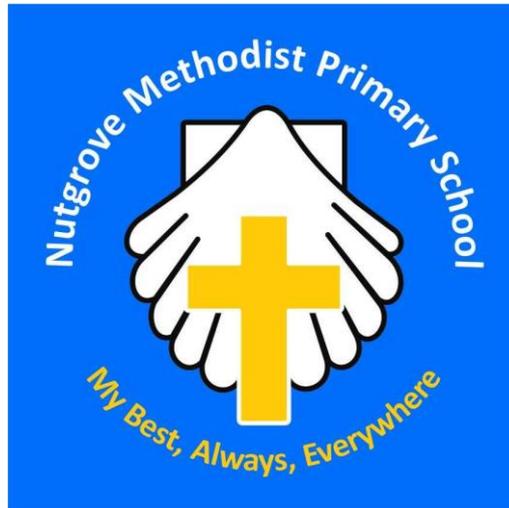


Computing Policy

Nutgrove Methodist Primary School



Approved by:

Last reviewed on: October 2020

Next review due by: October 2022

Intent

Computing and ICT (Information and Communications Technology) play a vital role in our lives, particularly in current times where technologies are constantly changing and evolving. Sound knowledge and understanding of ICT and Computing enables and prepares pupils to be active participants in a world where work, and other activities, are increasingly transformed by access to varied and developing technology. It is our duty as educators to ensure all children have access to an education in which such technologies are available and skills taught and practised to a high standard in a variety of ways.

The curriculum encompasses three main strands of Computing (C), Information and Communication Technology (ICT), and Digital Literacy (DL) which will be outlined in this policy.

This policy should be read in conjunction with the E-safety, Acceptable Usage and Information Security policies.

This policy aims to reflect the school values and philosophy in relation to the teaching and learning of C, ICT and DL. It is intended as an outline to establish what we will do, and as a guide for teachers, non-teaching staff, parents and governors.

We aim for our curriculum to:

- Provide a whole school approach, ensuring continuity and progression;
- Provide children with opportunities to develop their computing capabilities in all areas specified by the National Curriculum Computing Programme of Study;
- Provide challenge and excitement for our pupils, through their use across the curriculum;
- Inspire children to be creative and innovative with new and emerging technologies.
- To establish a framework for teaching and learning which meets the requirements of the new Computing Curriculum 2014;
- To promote a good understanding of what C, ICT and DL are and how they will look at Nutgrove;
- To establish clear expectations for staff and pupils;
- To promote continuity and coherence throughout school;
- To establish clear procedures and guidelines for staff to operate within.

We aim for members of staff to:

- Be confident users of new technologies to be able to use them effectively as powerful tools to support and enhance teaching and learning opportunities across the curriculum;
- Develop good subject knowledge in relation to C, ICT and DL so that they are able to deliver high-quality lessons to enable pupils to be challenged and achieve highly;
- Use computing technologies, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities.

- Provide pupils with challenging, engaging and motivating lessons;

We aim for our children to:

- Become autonomous, independent users of computing technologies;
- Be confident users of new technologies and be able to experiment with them in different ways to communicate learning;
- Be able to use logical thinking and reasoning to solve problems;
- Gain and apply new skills and knowledge in the areas set out in the POS;
- Understand how their C and ICT learning in school impacts on their future lives;

Implementation

The introduction of the new Computing Curriculum focuses on three main areas:

- Computer Science / Computing (C) – The ability to understand how technologies work and how to be an effective author of them. The ability to apply logical reasoning and computational thinking to solve problems.
- Information and Communication Technologies (ICT) – The ability to be an effective and thoughtful user of technologies to store, present and communicate information.
- Digital Literacy (DL) - The ability to locate, organise, understand, evaluate, and analyse information using digital technology. It involves a working knowledge of current 'high-technology', and an understanding of how it can be used.
- Pupils will be taught the equivalent of 1 hour of computing per week. This may take place as fortnightly 2-hour sessions
- The school's e-safety rules must be displayed clearly in every classroom (these can be found attached as an appendix to the policy)
- The first autumn term unit of work must be based on e-safety
- The e-safety rules should be revised at the start of every computing lesson and in any other lesson which requires pupils to use digital devices with access to the internet
- The computing curriculum must consist of at least three half-terms of computer science, one half-term of IT and one half-term of digital literacy

Whole School Planning Overview

	Aut 1 (7 weeks)	Aut 2 (6 weeks)	Spring 1 (5weeks)	Spring 2 (5weeks)	Sum 1 (6weeks)	Sum 2 (6weeks)
Year 1	1.1 Online safety & exploring Purple Mash (4 weeks) 1.2 Grouping & sorting (2 weeks)	1.3 Pictograms (3 weeks) 1.4 Lego Builders (3 weeks)	1.6 Animated story unit (5 weeks)	1.8 Spreadsheets (3 weeks) 1.9 Tech outside school (2 weeks)	1.7 Coding (6 weeks)	1.5 Maze Explores (3 weeks)
Year 2	2.2 Online safety (2 weeks) 2.1 Coding (5 weeks)	2.4 Questioning (5 weeks)	2.6 Creating Pictures (5 weeks)	2.3 Spreadsheets (4 weeks)	2.5 Effective Searching (3 weeks) 2.7 Making Music (3 weeks)	2.8 Presenting Ideas (4 weeks)
Year 3	3.2 Online safety (3weeks) 3.4 Touch-Typing (4 weeks)	3.1 Coding (6 weeks)	3.6 Branching Databases (4 weeks)	3.7 Simulations (3 weeks)	3.3 Spreadsheets (3 weeks) 3.8 Graphing (3 weeks)	3.5 Email (6 weeks)
Year 4	4.2 Online safety (4 weeks) 4.7 Effective Searching (3 weeks)	4.1 Coding (6 weeks)	4.3 Spreadsheets (5 weeks)	4.4 Writing for Different Audiences (5 weeks)	4.5 Logo (4 weeks)	4.8 Hardware Investigators (2 weeks) 4.6 Animation (3 weeks)
Year 5	5.2 Online safety (3 weeks) 5.4 Databases (4 weeks)	5.1 Coding (6 weeks)	5.5 Game Creator (5 weeks)	5.6 3D Modelling (4 weeks)	5.3 Spreadsheets (6 weeks)	5.7 Concept Maps (4 weeks)
Year 6	6.2 Online safety (3 weeks) 6.4 Blogging (4 weeks)	6.1 Coding (6 weeks)	6.3 Spreadsheets (5 weeks)	6.5 Text Adventures (5 weeks)	6.6 Networks (3 weeks)	6.7 Quizzing (6 weeks)

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.

Impact

- Children will be confident users of technology, able to use it to accomplish a wide variety of tasks, both at home and in school.
- Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving.
- Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.