

Roseberry Primary School

R P S



Policy for Computing

Approved by the Governing Body:	October 2015
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Head teacher:	Maggie Fearnley

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.'

(Statutory Guidance in the National Curriculum in England: Computing Programmes of Study 2013)

Statutory Requirements

Statutory requirements for Computing are outlined in the National Curriculum for Computing Document (2013) and 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

Subject content

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

At Roseberry Primary School, we aim to:

- Ensure a broad and balanced computing curriculum is provided for all children regardless of ethnic origin, gender, class, aptitude or disability.
- Meet the national curriculum requirements for Computing.
- Embed computing across a curriculum that acknowledges its contribution to learning in all other subjects.
- Equip pupils with a progression of computing skills that they can apply both in and out of school.
- Support all staff to make effective use of IT at a professional level.
- For computing to have a positive impact on pupils' creativity, motivation, independence and collaboration, behaviour and attitudes.
- Provide our children with an enjoyable experience of computers so that they will develop a deep and lasting interest and may be motivated to use them further.
- For children to use computers in experimental, imaginative, exploratory ways. This will include regular opportunities to engage with computer programming
- Ensure that staff and children understand the capabilities, advantages, risks and limitations of IT and consider the implications of its development for society.
- Make effective use of computers to transform teaching and learning providing opportunities that would otherwise not be possible.
- Facilitate electronic communication between home and school.
- Ensure the safety and well-being of our pupils.
- Teach Computing in line with the principles of our teaching and learning policy.
- Ensure computing resources are relevant and sufficient.

Approach to teaching the Computing Curriculum

In accordance with Article 13 (Children have the right to find out things and share what they think with others unless it harms or offends other), Article 28 (Children have the right to a good quality education and achieve the highest level they can) and Article 29 (Children's education should help them to use and develop their talents and abilities) the aim of this policy is to ensure that all children have the opportunity to learn about computing and how to use it safely.

At Roseberry, we have devised our own customised computing curriculum which meets the needs of our pupils in addition to meeting the requirements of the national curriculum. Where possible, the teaching of the Computing Curriculum objectives is cross-curricular.

Each year group's long term map will indicate which aspect of the computing curriculum is to be covered that term. E-Safety will be taught each half term.

As part of our medium term planning, teachers will outline more specifically the coverage of IT/Computing objectives within their half termly topic planning.

UNICEF- Rights respecting:

The UN Convention of the Rights of the Child sets out human rights of every person under 18 and applies to every child. It places the rights of the child at the heart of everything it does. Our school community ensures that rights are learned, taught, practised, respected, protected and promoted. There are 54 articles in the UNCRC, (for a copy of these please ask the Rights Respecting Steering Group Chair) the following articles specifically underpin this policy:

Article	Summary:
2	Non - Discrimination
12	Respect for the views of a child
13	Freedom of expression
16	Right to privacy
17	Right to information
19	Protection from violence, abuse and neglect
28	Right to education
36	Right to protection form exploitation
42	Knowledge of rights

Responsibilities

The Computing Lead will:

- Monitor the implementation of the Computing Policy.
- Ensure that year group long term maps highlights coverage of all aspects of the computing curriculum and short term planning is progressive.
- Devise, update and monitor the school's use of the IT/Computing skills progression documents.
- Support teachers with planning and use of resources.
- Undertake appropriate professional development to ensure an up to date knowledge and report to staff.
- Lead staff professional development in staff.
- Manage the computing resources in the school.
- Manage the work of the school's technician (currently employed from Oneits).
- With the headteacher, monitor teaching, learning and standards in Computing.
- Produce an action plan for Computing, setting out the priorities which will be incorporated in any school improvement plan.
- Carry out any risk assessments and follow health and safety and safeguarding guidelines.

Teachers will:

- Ensure that all aspects of the Computing Curriculum are included on Long Term Plans to plan opportunities for all children to develop a broad range of appropriate computing skills.
- Plan opportunities for the relevant and creative use of IT across the curriculum using our Roseberry Computing Scheme of Work informed by Knowsley's scheme of work.
- Plan for differentiation so that all children develop computing skills, taking into account the individual needs of children. This includes SEN, higher ability children and those with less access to computers at home.
- Ensure the appropriate time is allocated to discrete teaching of Computing and Computer Programming.
- Assess children against the progressive statements for all aspects of the Computing Curriculum
- Report pupils achievement in IT in the annual report to parents
- Follow health and safety guidelines and the 'Acceptable Use of IT', Home Learning and Online Safety policies.

All staff will:

- Ensure all adults and children handle and use equipment in an appropriate way.
- Follow health and safety guidelines and the 'Acceptable Use of IT' and Online Safety policies.