Computing Policy

St Edward's CE Primary School

Approved by:	Governors	Date: 1st November 2015
Committee:	Curriculum and Standards	Co-ordinator: Sam Lumley
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COMPUTING POLICY

Rationale

Computing teaching at Condover and Dorrington C.E. Primary Schools will ensure children learn the key skills that underpin everyday life in a digital world. The core of computing is computing 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. Children will become digitally literate allowing them to be able to use and express themselves through information and communication technology.

Curriculum aims

In Computing we aim to:

- develop children's understanding and application of the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- develop children's ability to analyse problems in computational terms and have practical experience of writing computer programmes in order to solve such problems.
- develop children's ability to evaluate and solve problems through their understanding of information technology.
- equip children to become responsible, competent, confident and creative users of information and communication technology.

Teaching and Learning

Children are taught computing from Year 1 to Year 6 and through technology in the Early Years curriculum. All pupils in school will be taught computing for at least one hour a week and this may be included through cross curricular learning.

Computing lessons will take different forms from whole-class teaching, including modelling and demonstrations by the class teacher for pupils to follow, to the application of new skills within small-groups or as individuals.

Computing in the Early Years:

It is important that children experience play-based computing during the Early Years. Alongside laptops being available, children will also experience computing through role-play and non-computer based resources such as programmable toys and recording devices. Building confidence in how to care for these different resources, along with the communication and research opportunities they bring, begins during this learning stage.

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By the end of Key Stage 1 pupils will 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.

By the end of Key Stage 2 pupils will 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.

Equal Opportunities/Special Needs

We ensure that all pupils have equal access to a broad and balanced curriculum regardless of age, gender, race and ability.

All children will participate in Computing activities. Learning will be differentiated to provide appropriate challenges to specific individuals and groups. Adult support will be used when appropriate and in accordance with other policies such as SEND.

Health and safety

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Activities are planned with due regard to our Health & Safety policy. When working with tools, equipment and materials in practical activities and in different environments, pupils should be taught:

- about hazards, risks and risk control
- to recognise hazards, assess consequent risks and take steps to control the risks to themselves and others
- to use information to assess the immediate and cumulative risks
- to manage their environment to ensure the health and safety of themselves and others
- to explain the steps they take to control risks
- E-safety (please see E-safety policy).

Assessment

Assessment of children's development is made through a combination of pre-unit and end of unit assessments, ongoing teacher assessment and use of National Curriculum age expected guidelines. Progress of all children and groups will be monitored throughout the school year. These will be conducted with, and monitored by, the Headteacher. Reporting to parents will occur during the annual school report in the Spring Term.

Monitoring and Evaluating

Monitoring and evaluation of teaching and learning will take place in line with the schools monitoring and evaluating programme and where specifically mentioned on documents such as the development plan.

Computing Resources

We currently have programmable toys, recording devices and a range of software on laptops and tablets to meet the needs of the Computing Curriculum.

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