South Gloucestershire Council

St Chad's Patchway CE VC Primary School

"Loving to Learn; Learning to Love"

COMPUTING POLICY

INTRODUCTION

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. In our school, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make this provision.

AIMS

- Provide a relevant, challenging and enjoyable curriculum for Computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- Use computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use computing throughout their later life.
- To enhance learning in other areas of the curriculum using computing.
- To develop the understanding of how to use computing safely and responsibly.

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- 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.

OBJECTIVES

By the end of 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.

By the end of key stage 2, pupils should be taught to:

- Design and write 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; generate appropriate inputs and predicted outputs to test programs

- Use logical reasoning to explain how a simple algorithm works 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
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- 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.

RESOURCES

We have a computer suite of 16 computers two Laptop trolleys containing 15 machines each and six iPads. The computer suite and laptops are timetabled for use by all children. All computers around the school are networked and have Internet access. We keep resources for ICT and computing, including software, in a central store. Interactive Whiteboards are available for all children to access daily. The computer suite is available for use throughout the school day as part of ICT and computing lessons and for cross curricular use.

PLANNING

Currently the school uses the South Gloucestershire Computing Scheme of Work to support the planning and delivery of the computing curriculum.

Computing units are taught on a two-year rolling programme, with the following rotation:

Cycle A

	Years 1 and 2	**Years 3 and 4**	**Years 5 and 6**
Term 1: Acceptable Use	See individual year group folders on J:\Computing\2014 Scheme of Work\Acceptable Use		
Term 2: Media	Year 1: Stories	Year 3: Biography	Year 5: Tales from other Cultures
Term 3: Programming	Year 1: Beebots	Year 3.1: Scratch	Year 5.1: Flowol
Term 4: Programming	Year 1: Programming	Year 4.1: Logo	Year 6.2: Kodu
Term 5: Data	Year 1: Materials	Year 3: Rocks	Year 5: Databases
Term 6: Impact of Technology	Year 2: Impact of Technology	Year 4: Impact of Technology	Year 6: Impact of Technology

Cycle B

	Years 1 and 2	**Years 3 and 4**	**Years 5 and 6**

Term 1: Acceptable Use	See individual year group folders on J:\Computing\2014 Scheme of Work\Acceptable Use		
Term 2: Media	Year 2: Traditional Tales	Year 4: Theatre and Plays	Year 6: Marketing
Term 3: Programming	Year 2.2: Programming On and Off Screen	Year 3.2: Pro-bot and Logo	Year 5.1: Scratch
Term 4: Programming	Year 2.1: Pro-bot	Year 4.2: Kodu	Year 6.1 Flowol
Term 5: Data	Year 2 Living Things	Year 4 Animals	Year 6 Data
Term 6: Impact of Technology	Year 1 Impact of Technology	Year 3 Impact of Technology	Year 5 Impact of Technology

ASSESSMENT

Assessment forms an important part of delivering the computing curriculum, to ensure that teaching and learning are progressive and that children are working towards National Curriculum objectives.

Assessment can be broken down into;

- Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.
- Summative assessment should review pupils' capability and provide a best fit level. Use of independent open ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives

We assess the children's work in ICT and computing by making informal judgements as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgement of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit. These judgements should be recorded on assessment spreadsheets, as indicated by the Computing Subject Leader.

MONITORING

This policy will be reviewed on an annual basis and amended when appropriate.

Headteacher: _____ Date: _____

Chair of Governors: _____ Date: _____