Stretton Handley CE (VC) Primary School Computing Policy

The use of information and communication technology and computing is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots and digital cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Stretton Handley CE (VC) Primary 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. Stretton Handley CE (VC) Primary School has invested in a computing programme that has open-ended tools that allow children's creativity to flourish.

The school believes that ICT and computing:

● gives pupils immediate access to a rich source of materials.
● can present information in new ways which help pupils understand access and use it more readily.
● can motivate and enthuse pupils.
● can help pupils focus and concentrate.
● offers potential for effective group working.
● has the flexibility to meet the individual needs and abilities of each pupil.

1.Aims

The school's aims are to:
● provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils;
● meet the requirements of the national curriculum programmes of study for ICT and computing;
● use ICT and computing as a tool to enhance learning throughout the curriculum;
● respond to new developments in technology;
● equip pupils with the confidence and capability to use ICT and computing throughout their later life;
● develop the understanding of how to use ICT and 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.

Curriculum

EYFS
It is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early years learning

environments should feature ICT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or drive a remote-controlled toy. Recording devices can support children to develop their communication skills. The EYFS aims to give the children knowledge and skills so they can begin the National Curriculum.

Key Stage 1
At Stretton Handley CE (VC) Primary School, Computing is taught as a discrete lesson and as part of cross-curricular themes when appropriate.
By the end of key stage 1 pupils should be taught to:
● write and test simple programs;
● use logical reasoning to predict and computing the behaviour of simple programs organise, store, manipulate and retrieve data in a range of digital formats;
● communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2
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 and 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.

Implementation- planning, teaching and learning

At Stretton Handley CE (VC) Primary School, our scheme of work for computing is the 'Teach Computing' Curriculum and covers all aspects of the National Curriculum. This scheme was chosen as it has been created by subject experts and based on the latest pedagogical research. It provides an innovative progression framework where computing content (concepts, knowledge, skills and objecties) has been organized into interconnected networks called learning graphs. Staff will follow medium term plans with objectives set out in the Teach Computing Scheme. Pupils progress towards the objectives set out in the lessons, outcomes and work will be recorded by saving into an online file, meaning that we can collect and store work in one place.

Assessment
Ongoing formative assessment monitors pupil performance and progress during learning; the outcomes of which we will use to ensure that work matches the individual needs and abilities of pupils. Summative assessment reviews pupils' progress and abilities and will be undertaken at the end of each unit, term and school year.

Impact
We encourage our children to enjoy and value the curriculum we deliver. We want children to discuss, reflect and appreciate the impact computing has on their learning, development and wellbeing. Much of the subject-specific knowledge developed from our computing curriculum equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. We want children to be confident using technology, but also recognise the impact and implications it can have if used inappropriately.

Resources and Access
The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible ICT infrastructure by investing in resources that will effectively deliver the strands of the national curriculum and support the use of ICT and computing across the school. Teachers are required to inform the ICT and computing coordinator of any faults as soon as they are noticed.
ICT and computing network infrastructure and equipment has been sited so that:
● Every classroom from EYFS to Yr6 has a computer connected to the school network and an interactive whiteboard
● There is an ICT area with computers and laptops available for all classes to use.
● Pupils may use ICT and computing independently, in pairs, alongside a TA or in a group with a teacher.
● The school has an ICT and computing support provided by Derbyshire County Council paid from the school budget.

Safeguarding
● The ICT and computing technician /coordinator will be responsible for regularly updating anti-virus software.
● Use of ICT and computing will be in line with the school's 'E-safety policy'.
● All pupils and parents will be aware of the school rules for responsible use of ICT and computing and the internet and will understand the consequence of any misuse.