



## 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. At Cheadle 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.

### Aims

The school's aims are to:

- Provide a relevant, challenging and enjoyable curriculum for Computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for Computing, including EYFS.
- Use ICT and 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 ICT and computing throughout their later life.
- To enhance learning in other areas of the curriculum using ICT and computing.
- To 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.

### Rationale

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.

### Objectives

#### Early years (see also early year's policy)

It is important in the foundation stage to give children a broad, play-based experience of Computing in a range of contexts, including outdoor play. Early years learning environments should feature Computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to explore with ICT. Outdoor exploration is an important aspect, supported by toys such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication and language skills.

**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 a sequence of instructions
- 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.

**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 and access**

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible system 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 Computing coordinator of any faults as soon as they are noticed. Resources if not classroom based are located in the ICT suite. A service level agreement with Staffs Tech is currently in place to help support the coordinator to fulfill this role both in hardware, software and audio visual. ICT and computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to Y6 has a laptop or computer connected to the school network and an interactive whiteboard with sound, DVD and video facilities. All class teachers have access to a teacher tablet for use within the classroom.
- There is an ICT suite of 17 desktops
- There are 2 laptop trolleys in school containing 15 netbooks with internet access available to use in classrooms.
- There are 15 iPads available stored in 6L.
- Each class from Y1 – Y6 has an allocated slot in an afternoon for teaching of specific Computing skills
- The ICT suite and netbooks are available for use throughout the school day as part of ICT and computing lessons and for cross curricular use.
- Pupils may use ICT and computing independently, in pairs, alongside a TA or in a group with a teacher.

**Planning**

As the school develops its resources and expertise to deliver the Computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers in Otrack as part of the school assessment systems. Staff will follow medium term plans with objectives set out in the national curriculum. A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include those with SEND. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any

teaching activities teachers should bear in mind that special arrangements could be made available to support individual pupils. This is in line with the school inclusion policy. These children should be identified and discussed at pupil progress meetings to ensure appropriate provisions or interventions are put into place.

### **Assessment and record keeping (also see assessment policy)**

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum. Assessing Computing work is an integral part of teaching and learning and central to good practice. It should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the concepts of ICT and computing. As assessment is part of the learning process it is essential that pupils are closely involved. 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 Computing by making informal judgements as we observe the children during lessons. We mark each piece of work against the lesson objective- marking G for achieved, A for working towards or R for not achieved. Once the children complete a unit of work, we make a summary judgement of the work for each pupil as to whether they are working at, below or above age related expectations. We record the results in Otrack and use these to plan future work, to provide the basis for assessing the progress of the child and to pass information on to the next teacher at the end of the year. Computing work is saved on the school network; each class has a folder in which to store work. Other work may be printed and filed within the subject from which the task was set.

### **Monitoring and evaluation**

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, book trawls or looking at data for the subject. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. We allocate special time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

### **Pupils with special educational needs (see also SEND policy)**

We believe that all children have the right to access ICT and computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the ICT and computing curriculum for some pupils. We teach ICT and computing to all children, whatever their ability. ICT and computing forms part of the national curriculum to provide a broad and balanced education for all children. Through the teaching of ICT and computing we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Where appropriate ICT and computing can be used to support SEND children on a one to one basis where children receive additional support. Additionally as part of our dyslexia friendly approach to teaching and learning we will use

adapted resources wherever possible such as visual timetables, different coloured backgrounds and screen printouts.

### **Equal opportunities (see also equal opportunities policy)**

Cheadle Primary School will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to ICT and computing and all staff members follow the equal opportunities policy. Resources for children will be made available to support and challenge appropriately.

### **Roles and responsibilities**

#### **The Governing Body has:**

- appointed a member of staff to be responsible for the curriculum leadership of computing
- delegated powers and responsibilities to the Headteacher to ensure all school personnel are aware of and comply with this policy
- responsibility for ensuring compliance with the legal requirements of the National Curriculum
- responsibility for ensuring that the school complies with all equalities legislation
- nominated a designated Equalities governor (P.Sidley) to ensure that appropriate action will be taken to deal with all prejudice related incidents or incidents which are a breach of this policy
- responsibility for ensuring funding is in place to support this policy
- responsibility for ensuring this policy and all linked policies are maintained and updated regularly
- responsibility for ensuring all policies are made available to parents
- nominated a link governor to visit the School regularly, to liaise with the Headteacher and the coordinator and to report back to the Governing Body (A.Ellerton)
- responsibility for the effective implementation, monitoring and evaluation of this policy

#### **The nominated governor will:**

- work closely with the Headteacher and the subject leader
- ensure this policy and other linked policies are up to date
- ensure that everyone connected with the School is aware of this policy
- attend training related to this policy
- annually report to the Governing Body on the success and development of this policy

#### **The role of the co-ordinator:**

- There is a Computing coordinator who is responsible for producing a computing action plan and for the implementation of this across the school.
- work closely with the Headteacher, the nominated governor and SENCO
- To offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of Computing
- To maintain and audit resources and advise staff on their use
- To monitor classroom teaching or planning following the schools rolling programme of monitoring
- To monitor the children's work, looking at samples of different abilities
- To manage the budget
- Undertake risk assessments when required
- To lead staff training on new initiatives.

- To attend appropriate in-service training and keep staff up to date with relevant information and developments
- To have enthusiasm for computing and encourage staff to share this enthusiasm.
- To keep parents and governors informed on the implementation of computing in the school.
- to liaise with all members of staff on how to reach and improve on agreed targets
- To help staff to use assessment to inform future planning.

**Pupils, including the school council will:**

- Children will follow a programme of study and cross-curricular themes suitable to their stage of development in Computing, which will encompass all areas of the subject in accordance with the Early Learning Goals for the Foundation Stage and programme of study in the National curriculum. They will do this by:
  - Using and applying computing in practical, real-life and problem-solving situations using the appropriate language.
  - Developing their skills of questioning and enquiry
  - be aware of and comply with this policy and the AUP
  - be encouraged to work in partnership with the school by making decisions and exercising choice in relation to their educational programme
  - listen carefully to all instructions given by the teacher
  - ask for further help if they do not understand
  - participate fully in all lessons
  - participate in discussions concerning progress and attainment
  - treat others, their work and equipment with respect
  - take part in questionnaires/surveys, liaise with the School Council;

**Staff training**

The Computing coordinator will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year. Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the coordinator. Teachers will be encouraged to use ICT and computing to produce plans, reports, communications and teaching resources.

**Technical support**

A contract with an external technical support company has been established which ensures that the school receives regularly technical provision. The school staff will raise a technical request in the log book or with the computing coordinator. This allows the technician to be aware of the issues and priorities jobs. A written response detailing the solution is then emailed back to the computing coordinator by the technician.

**Health and safety (see also health and safety policy)**

The school is aware of the health and safety issues involved in children's use of ICT and computing. All fixed electrical appliances in school are tested by an local authority contractor every five years (SPEEDs Electrical) and all portable electrical equipment in school is tested by an external contractor every two year (Calbarrie Electrical). It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school. This also applies to any equipment brought in to school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the senior site technician, bursar or head teacher who will arrange for repair or disposal.

- Children should not put plugs into sockets or switch the sockets on.
- trailing leads should be made safe behind the equipment

- liquids must not be taken near the computers
- magnets must be kept away from all equipment
- safety guidelines in relation to IWBs will be displayed in the classrooms
- e-safety guidelines will be set out in the e-safety policy & AUP

**Security**

- The Computing technician (Staffs Tech) will be responsible for regularly updating anti-virus software.
- Use of ICT and computing will be in line with the school’s ‘acceptable use policy’. All staff, volunteers and children must sign a copy of the schools AUP annually.
- Parents will be made aware of the ‘acceptable use policy’ at school entry
- 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.
- The agreed rules for safe and responsible use of ICT and computing and the internet will be displayed in all ICT and computing areas.

**Cross curricular links**

As a staff we are all aware that ICT and computing capability should be achieved through core and foundation subjects. Where appropriate, ICT and computing should be incorporated into schemes of work for all subjects. ICT and computing should be used to support learning in other subjects as well as develop ICT and computing skills.

**Parental involvement**

Parents are encouraged to support the implementation of ICT and computing where possible by encouraging use of ICT and computing skills at home during home-learning tasks and through the school website. They will be made aware of e-safety and encouraged to promote this at home.

**Linked Policies**

▪ Privacy Notice	▪ E-safety
▪ Health and Safety	▪ Assessment
▪ Special Educational Needs	▪ PSHE
▪ Early Years Policy	