Introduction

This policy sets out our School's aims and strategies for the successful delivery of Computing. This policy should be read in conjunction with other relevant school policies such as the Safeguarding, E-Safety, Equal Opportunities, Curriculum, Finance, Teaching & Learning, SEND, Health and Safety and Assessment policies.

This policy is based on government recommended/statutory programmes of study.

Rationale:

Our School believes that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school, staff and pupils.

We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

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.

Our aims:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- Instil critical thinking, reflective learning and a 'can do' attitude for all our pupils, particularly when engaging with technology and its associated resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.

- To raise educational standards in discreet Computing skills and in their application in other subjects.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).
- To support the professional work of staff and to enhance the school's management information and business administration systems through:
    - discussion with experts in many fields
    - staff professional development – access to educational materials, good curriculum practice, training in new developments
    - communication with the advisory and support services, professional associations and colleagues
    - successful and well-managed technical support for all networked computers including the remote management of networks
    - exchange of curriculum and administration data with the LEA and DFES

Safeguarding: Online safety

Online safety has a high profile at our School for all stakeholders. We ensure this profile is maintained and that pupil needs are met by the following:

- A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year 6.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Scheduled pupil voice sessions and learning walks/'deep dives' steer changes and inform training needs.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns.
- Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
- Our e-safety policy clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Filtering and monitoring systems for all our online access.
- Data policies which stipulate how we keep confidential information secure.
- An adult should always supervise children when they are accessing information via the Internet. The service provider does filter information but staff are advised to take great care on the content accessed by children and are ultimately responsible for information accessed by pupils.
  Computers/ipads/tablets are not for free use during wet play or wrap around/holiday club (approved games only in the latter).

Curriculum

As a school, we have chosen the Purple Mash Computing Scheme of Work from Reception to Year 6 to deliver the 2014 framework. The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow

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all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides flexibility, strong cross-curricular links and integrates with the 2Simple Computing Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers. Teachers may wish to use other platforms/tools to deliver the curriculum and we support this as appropriate. In particular, by the end of Y6, we aim for children to be confident with a range of computing tools and platforms e.g. Microsoft Office; scratch; email etc.

The curriculum will be delivered through discrete timetabled sessions (around an hour a week) and use of technology across the curriculum as appropriate.

Early Years

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in roleplay e.g. phone, computer, shop tills/scanners etc.
- Pupils gain confidence, control and language skills through opportunities to 'paint' on devices or control remotely operated toys, cameras, sound tins, walkie-talkie sets etc.
- Pupils understand they programme or control devices e.g. laptops, ipads, cameras etc. (pupils able to log on to lap tops and purple mash by end of Reception)

Key Stage 1 outcomes

- 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.
- 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 outcomes

- 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.

Assessment

Pupil attainment is assessed using the 2Simple Computing Assessment Tool for Years 1 to 6 and through the EYFS profiles at Nursery and Reception. A progression of skills is the basis of this and is attached to this policy. Using electronic work samples from children's portfolios, teachers enter judgements about the samples into the 2Simple Computing Assessment Tool Spreadsheet. Work from a range of classes and abilities can be shared using the Noticeboard feature in Purple Mash and the Parent Portal.

The spreadsheet tool enables staff to accurately identify attainment of pupils through the detailed exemplification it has for each key learning intention.

Teachers keep accurate records of pupil attainment by entering data after each unit. This tracking of attainment is also used to inform future planning.

Children are encouraged to self, peer and group assess work. Formative assessment is undertaken each session/interaction in Computing and pupils are very much encouraged to be involved in that process. Features such as preview and correct in Purple Mash are used to further support feedback and assessment.

Summative assessment is undertaken in line with the assessment cycle (See Assessment Policy). Biannual reports share this with parents and in school monitoring (see later section) evaluates provision across the school.

Resources

All resources are procured with the underlining considerations of value: The extent at which the resource impacts on learning and the material cost of this. Protocol details for procurement can be found in the trust finance policy.

A range of resources are available which successfully supports delivering the Computing curriculum and enables all learners to reach their full potential.

Resources are suitably maintained and replenished when needed, which is overseen by the Computing Leader.

Audits of school resources are conducted regularly by the Computing Leader, which informs budgets allocations.

The Computing Leader with advice from our IT provider (Telford and Wrekin) keeps up to date with the latest technology resources and will make informed decisions about possible procurement of them.

Suggestions for getting the very best out of the resources are made available to teaching and support staff by the Computing Leader.

ICT and computing network infrastructure and equipment has been sited so that:
- every classroom has a laptop connected to the school network and an interactive whiteboard with sound.
- there are laptop trolleys containing laptops/tablets/ipads. These are accessible to all classes and a timetable or informal liaison supports sharing of resources for

whole class use.
- there is a variety of other ICT equipment in school including; Beebots, digital cameras, microphones and headphones. These are either stored in classrooms or in the ICT cupboard in Severn class library

Inclusion

We aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN.

We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

Monitoring, Evaluation and Feedback

Monitoring standards of teaching and learning within Computing is the primary responsibility of the Computing Leader and the whole teaching team. All teachers are expected to support children to keep an online portfolio or track children's work. This portfolio must contain work samples from all areas of the curriculum taught for the year group.

Details of monitoring and evaluation schedules can be found in the School Development Plan.

Monitoring will be achieved through:
- Work scrutiny.
- Learning walks/'Deep Dives'.
- Summative assessment judgements on the 2 simple assessment tool (staff are expected to keep this up to date and the computing leader will monitor/evaluate at least twice a year)
- Observations.
- Pupil voice.
- Teacher voice.
- Reflective teacher feedback.
- Learning environment monitoring.
- Dedicated Computing Leader and Assessment Leader time.
- Evaluation and Feedback will be achieved through:
  - Dedicated Computing Leader and Assessment Leader time.
  - Using recognised standards documentation for end-of-year expectations.
  - Using recognised national standards for benchmarking Computing provision in primary schools.
  - Written feedback on evaluation of monitoring activities to be provided by the Computing Leader in a timely manner.
  - Feedback on whole school areas of development in regard to Computing to be fed back through insets/AOB/staff meetings.

Roles and Responsibilities

Due to technology extending beyond the National Curriculum for Computing, there are key roles and responsibilities specific members of staff have.

Head Teacher
- Monitoring the implementation of the Computing Policy and its associated policies such as the Safeguarding and SEND Policies.
- Securing and reviewing technical support service contracts and infrastructure maintenance contracts.
- Approving CPD and training which is in line with the whole school's strategic plan.
- Approving budgets and setting them.
- Creating in conjunction with the Computing Leader, a long-term vision for Computing which includes forecasted expenditure and resources.
- Monitoring the performance of the Computing Leader in respect to their specific job role description for Computing.
- Ensuring any government legislation is being met.

Computing Leader
- Raising the profile of Computing for all stakeholders.
- Monitoring the standards of Computing and feeding back to staff in a timely fashion so they can act on areas for development.
- Ensuring assessment systems are in place for Computing.
- Maintaining overall consistency in standards of Computing across the school.
- Reporting on Computing at specific times of the year to the Governing Body/Head/Staff.
- Auditing the needs of the staff in terms of training/CPD.
- Actively supporting staff with their day-to-day practice.
- Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
- Attending training and keeping abreast with the latest educational technology initiatives.
- Using nationally recognised standards to benchmark Computing.
- Creating Action Plans for Computing and supporting a long-term vision which feeds into the whole school development plan.
- Creating bids for the annual budgets and monitoring budget spend.
- Procuring physical and online resources that demonstrate best value.
- Reviewing the Computing curriculum and developing it as needed.
- Liasing with the technician.
- Working as needed with the SENCO/Head Teacher to ensure online safety provision is above adequate and all legislation is in place.

Technical support through Telford and Wrekin
- Conducts routine scheduled maintenance/updates on systems.
- Supports the administration and set-up of online services.
- Fixes errors/issues with hardware and software set-up, prioritising as needed.
- Routinely checks school filtering, monitoring and virus protection.

- Sets up new hardware and installations.
- Maintains network connectivity and stability.
- Supports the Computing Leader and Head Teacher with future infrastructure needs and associated projected costs.

(Please see contract for further information)

Administration Staff
- Maintain the school website content.
- Supports procurement of resources and technical services.
- Supports the technician with some data management.

Health and Safety

Our School takes all necessary measures to ensure both staff and pupils are aware of the importance of health and safety:

- Both staff and pupils are trained to handle electrical equipment correctly including how to power off and on.
- Pupils are reminded about the dangers of electricity and the danger signs to look out for.
- Staff are required to inform the Computer Leader/technician of any faults as soon as they are noticed and record these on the digital ICT SelfService System with Telford and Wrekin. A service level agreement with Telford and Wrekin and SGET is currently in place to help support the technical part of ICT and computing, as well as having a named technician (Tim Clayden) who is available in school every other fortnight to deal with technical issues.
- All electrical appliances in school are PAT tested accordingly. It is advised that staff should not bring their own electrical equipment into 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 into school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the activity 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 coordinator or technician who will arrange for repair or disposal.
- Food and drink should not be consumed near computing equipment.
- It is the responsibility of staff to ensure that classroom computing equipment is stored securely and that their class or themselves leave the equipment clean and tidy after use.
- Staff should ensure that the children and staff are seated at the computers comfortably and be aware of the dangers of continuous use (e.g. eye/wrist strain etc). (See risk assessments in Health and Safety Policy)