Stedham Primary School

Computing Policy

Reviewed
Autumn 2022

Computing Lead: T. Noble

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What we believe

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 Stedham 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.

As a staff we all agree:

- All pupils have the right to access, progress and achieve in the Computing curriculum at their own level of ability
- That all teachers have responsibility for the development of Computing across the school
- That all teachers are responsible for the development of computing skills across all areas of the curriculum

Our aims for the teaching of English

1. The school's aims are to:
   - Meet the requirements of the National Curriculum programmes of study for computing.
   - Provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
   - 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 develop the understanding of how to use ICT and computing safely and responsibly.
2. 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

Early Years

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. Computing is not just about computers. Early years learning environments should feature Computing scenarios based on experience in the real world;, such as role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as bee-bots, walkie-talkie sets etc. Recording devices can support children to develop their communication 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 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.

Role of the Teacher

In the teaching of computing, the teacher fulfils a number of roles.

- **model:** as a skilled user of language, the teacher's role is the central element in fostering positive attitudes towards computing;

- **facilitator:** providing a supportive and stimulating environment, purposeful activities and enabling children to develop independent computing skills;

- **initiator:** providing a variety of resources and opportunities for a wide range of balanced and differentiated activities to encourage the development of skills in Multimedia Text and Images; Multimedia Sound and Motion; Handling Data; Coding and Programming; and Online Safety

- **monitor:** observing and recording the development of skills in computing;

- **assessor:** evaluating and assessing the development of skills in computing.

- **learner:** children often know much more about computers than we do so we will model good learning!

Resources

We have a three computers available in every classroom; a trolley of laptops (mainly HP and Lenovo); a trolley of 2015 iPads and a trolley of 2019 iPads. A complete analysis and audit of the hardware we have available has been scheduled for Autumn 2022.

The hardware is able to be booked out using a timetable for the week. Computers around the school are networked and have Internet access with some exceptions. We keep resources for ICT and computing, including software, in a central store. Interactive Whiteboards are available for all children to access daily.

Online resources

We have a range of schemes and software packages that we have brought into that gives children opportunities to become familiar with various aspects of the computing curriculum (such as logging in; e-safety; and hardware control) as well as helping the children learn in other areas of the wider curriculum. The packages we have available in school are as follows:

Computing Technicians

The school employs one Computing Technician whose specific roles relate to the provision of support in computing. They are one site one Thursday a month. This support takes a variety of forms, including:
- dealing with technical queries relating to software and hardware;
- carrying out rudimentary and routine maintenance and repairs of hardware;
- purchasing and updating equipment;
- supporting teachers in the use of ICT in other curriculum areas;
- supporting admin staff with the use of ICT within their roles;

Planning Modules
Planning and schemes of work are planned in line with the National Curriculum. Medium term plans are designed to enable pupils to achieve stated objectives, allowing for clear progression as they move up the school. The medium term plans for computing are on the staff share area on the server, and this can be accessed by all teachers. This enables not only planning to be picked up by any teacher to teach in any class. But also so all teachers can see what is being taught in other year groups and plan progression accordingly.

Assessment and record keeping (also see assessment policy)

Key objectives to be assessed are taken from the National Curriculum. Teachers regularly assess capability through observations, discussions with pupils and looking at completed work. Regular assessment of 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.
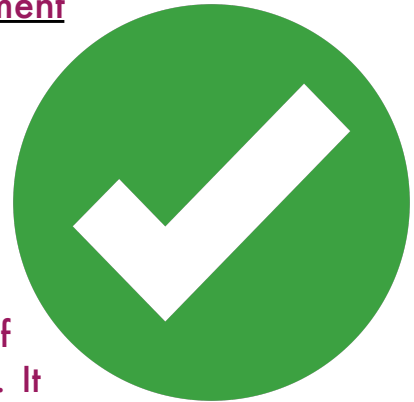
Assessment can be broken down into;
- Formative assessments are carried out during and following short focussed tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next 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 in the Twinkl objective sheets – showing whether the pupils have met, exceeded or not achieved the learning objectives- these will be completed once a term and any particular children who have either met or not met the objectives will be discussed at the pupil progress meetings.

Security

The computing technician will be responsible for regularly updating anti-virus software.

- The headteacher will be responsible for reviewing any alerts found on the key word search filter and follow through with any discussions with children
- Use of computing equipment will be in line with the school's 'acceptable use policy'. All staff must sign a copy of the schools policy annually.
- Children and parents sign a 'Responsible internet access and ICT use for pupils' form when they enter the school in EYFS.
- 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.
- The rules of e-safety are displayed where any child can access the internet. If a child breaks these rules, they will be denied internet access for a period of time after which the situation will be reviewed.

Monitoring and Reviewing

The monitoring of the standards of the children's work and of the quality of provision in teaching in computing is the responsibility of the subject leader. The overall responsibility for the progress of children in this area is the responsibility of the headteacher.

The computing subject leader is also responsible for supporting colleagues in the teaching of computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.

The computing subject leader gives the head teacher an annual summary report in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement.

The computing subject leader has specially-allocated time for carrying out the vital task of reviewing samples of the children's work and for visiting classes to observe the teaching of computing.

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.

Portable electrical equipment in school is tested by the site manager or specialist PAT tester every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment should (where possible) either be brand new or 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 computing technicians.

- 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
- 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 Parental involvement
- **Parents are encouraged to support the implementation of computing where possible by encouraging use of 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.**

Assessment and recording

Assessment is at the heart of the teaching and learning process.
- In the EYFS, children are assessed against the Early Learning Goals. Most of the observations for assessment are based on those activities that children initiate and engage with independently across the range of provision.
- In Key Stage 1 and 2 teacher assessments are based on NC and end of year or key stage expectations.
- As children move on through the school, teachers continually observe children's attainment and progress, using this to inform next steps for planning. Curriculum targets for the end of the academic year are set and teacher assessments are recorded at six points during the academic year and entered onto the Twinkl spreadsheet (see assessment policy)
- Year 1 children undertake the Phonic Screening tests during the summer term.
- Progress is monitored each term in Pupil Progress Meetings to ensure children are on track, and intervention strategies are put in place if necessary.
- Staff meetings, locality moderation events and INSET days provide opportunities for formal and informal discussions, whole-school and external moderations of work, and reviews of pupil progress.
- At the end of KS1 and KS2, the children are rigorously assessed using the new 2017/18 ITAF checklist and accompanying exemplars. These enable teachers to have a solid and authoritative grounding in their assessment judgements.
- At least once a year, a class teacher will attend an 'Area Moderation Meeting' this gives teachers a 'second opinion' on their writing assessment judgements throughout the year.

Monitoring and Evaluating

The Head Teacher has the overall responsibility for monitoring and evaluating pupils' achievements in the subject- this is aided by the Computing subject lead who will undertake various activities and audits to assess the provision in this subject.
The Computing subject lead will monitor Computing throughout the school. This includes learning walks, work sampling, observing and talking to children about their work in class and their learning targets. The subject lead will support staff development and training, model teaching and visit other classes.

Special Educational Needs and Disabilities

The needs of children requiring additional support for English will be discussed by the Computing Subject Leaders, SENDCo and the class teacher. Intervention strategies will be put in place and progress will be monitored. The Computing Subject lead is aware of the individual interventions that go on throughout the school. We have access to several accounts of Clickr, which enables children with extra learning needs, especially those involving handwriting or writing in general to access their learning as well as many other schemes such as Dance Write etc that all enable children with barriers to learning to still make expected or better progress throughout the year.

Equal Opportunities

All children have an entitlement to participate fully in English, regardless of gender, race, age or ability, in accordance with the school's Equal Opportunities Policy.
Children whose second language is English receive appropriate support as necessary.
We are aware of the research that suggests boys under-achieve in literacy. We will give equal access to materials, teacher time and attention. We aim to raise standards among all children equally.

Reviewed: July 2022
Date of next review: July 2023