



INCLUSIVE LEARNING FEDERATION

Bradwell Village School Computing Policy

Written by: S Gorania

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Computing Policy

Introduction

Computing and the use of information and communication technology are integral parts of the national curriculum and are key skills for everyday life. One of the intentions of the computing curriculum is to enable children to become digitally literate: to develop the knowledge and skills necessary to fully participate in the modern world. This means having access to a broad range of software and technologies and experiencing them in different ways and contexts.

Computers, tablets, digital and video cameras are a few of the tools that are used to acquire, organise, store, manipulate, interpret, communicate, and present information. We recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the knowledge and skills needed to enable them to use them effectively.

Intent

We want children to be prepared for the ever-changing technological demands in society. We aim to make computing an engaging and challenging learning experience and to give our children the skills and knowledge that they will need to thrive in the modern era.

We aim to give each pupil the opportunity to apply and develop their technological understanding and skills across a wide range of situations and tasks. Pupils are encouraged to develop a confident and safe approach to computing and the use of ICT, with the understanding of the capabilities and flexibility of their resources. With the knowledge that Computing, and ICT will undoubtedly continue to form a major part in the children's life at home, in further education and places of work, we ensure the computing and ICT experiences and abilities that the children are equipped with at Bradwell Village School, are effective and develop transferrable life skills.

We aim to develop the pupils' knowledge and skills by building on the previous learning and by covering the national curriculum objectives for KS2.

We recognise the wide differing abilities of computing and ICT abilities due to the influences and access to ICT equipment at home. We believe that all children should have the equipment to enable them to access learning using digital technology and to this end, we have endeavoured to source equipment and to provide our most disadvantaged families with computers for remote learning. Will aim to continue to do this. We aim to provide learning opportunities that fit the abilities of the child through:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability in the room and setting different tasks to each ability group;
- providing resources of different complexity depending on the ability of the child.

We believe that all children should know and understand how to stay safe online therefore,

e-safety underpins the way we teach computing.

We aim for all children by the end of year 6 to:

- understand how computer networks enable computers to communicate and collaborate;
- begin to use internet services within his/her own creations to share and transfer data to a third party;
- independently select, use, and combine a variety of software to design and create content for a given audience, including collecting, analysing, evaluating, and presenting data and information;
- design and create a range of programs, systems and content for a given audience;
- independently select, use, and combine a variety of software to collect, analyse, evaluate, and present data and information;
- use technology respectfully and responsibly;
- identify a range of ways to report concerns about content and contact in and out of school;
- be discerning when evaluating digital content;
- use filters in search technologies effectively and is discerning when evaluating digital content;
- include use of sequences, selection and repetition with the hardware used to explore real world systems;
- solve problems by decomposing them into smaller parts;
- create programs which use variables;
- use variables, sequence, selection, and repetition in programs;
- use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently.

Implementation

The curriculum has lessons devoted to developing the knowledge and skills we want the children to achieve whilst at Bradwell Village School. The objectives are age appropriate and have clear progression through the year groups. I-Compute underpins the computing and ICT curriculum.

We show pupils the benefits of using technology but also reiterate the importance of staying safe online. E-safety is taught at the beginning of each term for each year group. This is taught through discussions with the children, circle time activities, role play and interactive activities. We show the children the importance of protecting personal information safely, including photos, addresses and passwords. These are also taught through the PSHE modules, including discussions about social media. E-safety is also taught as part of the three core PSHE themes of wellbeing, living in the wider world and relationships and these have adaptive activities for learning. These ensure that all abilities are able to access the curriculum at the appropriate level.

The curriculum map is accessible to all. Lessons are planned based on the objectives identified in the curriculum map. The curriculum team ensures that the lessons meet objectives through meetings to review planning and assessment sessions to monitor learning and progress.

Computing has vital links with mathematics, science and design and technology. The main basis is computer science, in which children understand the principles of information, how

digital systems work, and how to apply this to programming. Computing also allows children to express themselves digitally, preparing them for the digital world.

We teach computing to all children, whatever their ability. Teachers provide learning opportunities matched to the ability of the children. We also incorporate different technologies to allow children with special needs to access the activities. We encourage buddy systems in computing to support those that need additional support, as well as encouraging the more confident children to share their knowledge with others. Each lesson has a challenge activity to stretch and challenge. We also offer Code Club, run in partnership with the Open University, to offer mastery activities after school.

Special Educational Needs Disability (SEND) / Pupil Premium / EAL/ Higher Attainers

All children will have Quality First Teaching and an adapted Curriculum. A variety of teaching methods and resources are used to cater for individual learning styles and needs, and to maximise participation/ engagement in lessons, e.g., programmes, games, oral presentations, cloze procedures, role-play, dictation, dictionary work, videos, etc. Our school offers a demanding and varied curriculum, providing children with a range of opportunities in order for them to reach their full potential and consistently achieve highly from their starting points.

Any children with identified SEND or in receipt of Pupil Premium funding may have work additional to and different from their peers in order to access the curriculum dependent upon their needs.

Adaptations to the Curriculum for Pupils with SEND

The subjects in our curriculum are ambitious for all pupils, including children with SEND. Curriculum Leaders have high expectations of what SEND pupils can achieve. The curriculum is not diluted or unnecessarily reduced for SEND learners.

Individual needs

We understand that every pupil is different and so, what works for each pupil will vary. There are general practices which are likely to improve learning and achievement for SEND pupils, but the success of any adaptations will depend on how pupils' individual needs have been considered and met.

Curriculum Planning

SEND pupils, like all pupils, benefit from careful consideration of the components of a curriculum. These should be introduced in manageable 'chunks'. The size of these chunks might differ between different groups of pupils depending on their individual needs. The chunks should be sequenced in a coherent way to enable pupils to build on prior knowledge. Too much information at once can be a barrier to learning and can reduce the chances of pupils remembering what they are being taught.

Instruction and Working Memory

SEND pupils will benefit from instruction which is matched to their needs. This means that teachers choose methods of instruction (e.g. precision teaching) which increase the chances of SEND pupils being able to pay sufficient attention to the curriculum objectives while understanding that overly elaborate tasks can make it more difficult for SEND pupils (particularly those with receptive language delay) to learn the curriculum content. We ensure that working memory is always considered. Where working memory is an issue for

SEND pupils, it can be effective to reduce extraneous load as much as possible as well as isolating key information when teaching. We support pupils to pay attention to the content which they are expected to learn.

It is not appropriate to adopt a one-size-fits-all approach to SEND provision in Computing. Adaptations should be based on individual needs. Pupils with SEND do not generally benefit from differentiated teaching, tasks or expectations. Targeted teaching, however, can be effective in ensuring pupils achieve specific goals. Starting with identifiable subject matter can be effective when working with pupils who struggle with abstract ideas.

Vocabulary

At Bradwell Village School opportunities for the development of the technical vocabulary and phrases used in computing and ICT are provided during a range of activities and using a variety of resources – both textual and online. There is also discussion about the content of these texts and online resources which enrich and develop the children's understanding of computer knowledge and concepts. The children have opportunities to discuss the meanings of words, the identification of similar words and connections between words.

Remote learning

Children have access to learning resources delivered through Padlet or Google classrooms and they are able to respond to the tasks set either through the above platforms or by emailing their work to their class teacher.

Developing staff's knowledge and understanding of computing and ICT

To enable the staff to deliver an effective curriculum for computing and ICT we have training sessions to develop their knowledge and skills. Significant investment has gone into developing the infrastructure for computing and ICT, including the purchasing of Chrome Books along with extensive staff development.

The knowledge, skills and strategies taught are demonstrated by pupils when faced with difficulty. Pupils are able to verbalise how they came to a decision.

We plan activities that build on prior learning and make links to existing knowledge. We plan progression into the activities, to give an increased challenge for the children as they move up through the school. Planning is continually adapted to meet the changing issues – as technology advances and new opportunities arise, as well as any new challenges for the children that they are prepared for the new digital age. Each year groups regularly evaluates and adapts their planning.

Health and safety

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 a contractor every five years and all portable electrical equipment in school is tested by an external contractor 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 must be PAT tested before being used in school.

- Damaged equipment is reported to the technician or business manager who will arrange for repair or disposal.
- Children do not put plugs into sockets or switch the sockets on.
- Trailing leads are made safe behind the equipment.
- Liquids are never taken near the computers.
- E-safety forms an integral part of the curriculum.

Security

- The ICT and computing technicians are responsible for regularly updating anti-virus software.
- Use of ICT and computing equipment is in line with the school's 'acceptable use policy'.
- Parents are made aware of the 'acceptable use policy' when their child starts at BVS.
- All pupils are made aware of the school rules for responsible use on login to the network and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of ICT and computing and the internet are displayed in all ICT and computing areas.

Assessment and Impact

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key computing skills each term. Assessing ICT and computing work is an integral part of teaching and learning and central to good practice. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into:

- formative assessments which 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 reviews pupils' capability and provide a best fit. Use of independent open-ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work. There are opportunities for pupil reviews and the identification of next steps. Summative assessments are recorded for all pupils – showing whether the pupil is below, within or secure in the learning objectives.

We record the results on Insight, and we 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 or turned in via Google Classrooms.

Monitoring

The curriculum leader is responsible for monitoring the standard of the children's work and the quality of teaching. The curriculum 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. The governors will ensure this policy is reviewed.

This policy is monitored through:

- lesson observations;
- learning walks;
- work scrutiny (books and online);
- planning scrutiny;
- progress data.