Computing Policy

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Policy Lead: C. Layhe-Humphreys
Email address: clayhehumphreys@matlockbath.derbyshire.sch.uk

Link Governor: Rob Burton

"Let us run the race before us and never give up"
Hebrews 12.1

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, 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 MBHT CofE 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.

MBHT C of E Primary School has invested in a computing programme that has open-ended tools that allow children's creativity to flourish. Children can create expressive multi-media stories, make their own games or compose their own music through the exploration of technology and tools. Computing will be planned in line with this programme and national curriculum.

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.

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;

Computing and the National Curriculum

Foundation Stage

Children enter our Reception class in the September after their fourth birthday. The EYFS in Reception sets out the learning objectives for the seven areas of learning:

Physical Development	Understanding of the World
Expressive Arts and Design	Communication and Language.
Personal, Social and Emotional Development	Mathematics
Literacy	

The EYFS aims to give the children knowledge and skills so they can begin the National Curriculum.

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. This is particularly useful with children who have English as an additional language.

Key Stage 1

At MBHT C of E 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.

See the National Curriculum document for the full programme of study that the school will follow.

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 has access to tablets and laptops connected to the school network and an interactive whiteboard.
- There are 2 laptop trolleys in school with internet access available to use in classrooms.
- 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 technician provided by Derbyshire County Council paid from the school budget.

Planning

As the school develops its resources and expertise to deliver the ICT and computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression.

Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans with objectives set out in the new national curriculum and use the same format for their weekly planning sheet. 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 G&T children, those with SEN or those who have EAL. 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 staff 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

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 ICT and computing skills each term. Assessing ICT and 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.

- 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. Use of independent quizzes at the end of each half term, 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. This will be recorded by teachers within the key stage and next steps identified.

Assessment should:

Be formative and summative

Be used to inform the teacher for future planning

Promote continuity and progression

Form the basis for reporting to parents

Be based on observation, participation and written outcomes

Classroom Organisation

Ability groups

Mixed ability groups

Mixed ability partners

Ability partners

Individuals

Whole class groups

Children will be grouped as appropriate for the task in order to encourage flexibility

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.

The Role of the Computing Co-ordinator:

- To review changes to the National Curriculum requirements and advise on their implementation.
- Attend relevant CPD courses for Computing as appropriate in line with the School Development plan.
- Arrange staff meetings to discuss the Computing aspects of the themes contained in the school's current scheme of work and how these might be presented in the classroom.
- Carry out an annual audit of the school's Computing resources to ensure that our children can learn effectively in and through Computing.

- Liaise with the school's SENCO regarding the progress of individual and groups of children.

- Collate 'End of topic Assessments' and 'End of Key Stage Assessments' and set new priorities for development of Computing in subsequent years.

- Monitor the learning and teaching in Computing and provide support for staff when necessary.
- Endeavour to involve parents/carers in their children's learning and understanding of Computing.