Computing Policy

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Rationale
At Barley Fields Primary we recognise that pupils are living in a rapidly changing world, in which computing is playing an ever-increasing role. We aim, therefore, to equip children with the skills to adapt to new technology and to give them confidence to use computing to further their learning and assist them in everyday life. In doing so, all pupils will have access to computing equipment and resources, according to their ability and age range.

We believe that increased computing skills promote independent learning and gives greater access to a wide range of ideas and experiences. It enhances the quality of children's work across the curriculum and should enhance and enrich the learning process.

Intent
At Barley Fields, we know that computing and digital technology is going to play a pivotal role in our children's lives and as a result we aim to develop 'thinkers of the future'. We aim for our children to be digital creators rather than just consumers when using technology and to equip them to navigate the rapid and extraordinary changes taking place in digital technology effectively and safely.

Our curriculum, encompassing computer science, information technology, digital literacy and online safety, is progressive, ambitious and carefully sequenced. Children know that they need to face and overcome challenge in computing lessons; they accept that they will fail, will need to persevere and develop skills as logical, computational thinkers. We offer children access to a wide range of software, platforms and devices to help them, using technology as a tool for both creativity and learning. We want our children to be active participants in the digital world, whilst ensuring they are respectful, responsible and confident users; children will constantly be made aware of measures they can take to keep themselves, and others, safe online. As a school we utilise technology (including social media) to model positive use; we recognise that the most effective prevention for issues regarding technology is education. Our curriculum is knowledge rich but also provides the children chance to apply their computing skills which will, in turn, allow children the opportunity to become budding computer scientists.

Our children follow a carefully structured Computing curriculum which has been designed to ensure children know more, do more and remember more as they progress through our school. Our content is supported by advice, requirements and guidelines presented in the National Curriculum and the Teach Computing scheme built by The NCCE (The National Centre for Computing Education). Our curriculum is built around three strands of learning:

Computer Science	Information Technology	Digital Literacy and Online Safety
The understanding of coding and programming across a range of physical devices and digital resources. Investigating how computers work and networks connected.	The range of skills required to operate and manipulate specific programs, systems, and content. *Including desktop publishing, creating media and data handling.*	The knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world.

As a school, we utilise technology (including social media- with most classes having their own Twitter pages and SeeSaw feeds) in order to model how it can be used positively. In order to diminish the growing problems and concerns around issues with technology and social media, we educate children to be responsible digital citizens. Through this approach, we are able to allow children to share their work and learning in a more creative manner (green screening, eBooks and iMovies, among many more) making the curriculum more accessible for all.

Through embedding elements of our computing curriculum in other curriculum areas, children are able to apply their knowledge creatively and, most importantly, for a purpose which helps them become a creator rather than a consumer. As a result, children will be fluent with a range of tools to express their understanding in a way they see fit and, by the

end of their primary years, will have the independence, confidence a diligence to use technology to support and enhance their learning and everyday lives in a positive manner whilst also maintaining an effective balance.

We intend for children:
- *To develop children's individual computing capability and understanding*
- *To ensure all children know how to stay safe online*
- *To enhance teaching and learning in other areas of the curriculum by cross curricular use of computing*
- *To develop computing as a tool for learning and investigation*
- *To equip pupils with the confidence and capability to use IT throughout their education, home and further work life.*
- *To recognise the potential, and deepen the necessity of computing in everyday life*
- *To stimulate interest in new technologies*

Roles and Responsibilities
The Computing leads in each key stage will be involved in:

- Formulating and updating the policy when appropriate
- Ensuring staff are aware of the policy's content and that it matches classroom practice as far as possible
- Assisting in the development and review of the progressive curriculum map – long term scheme of learning and the medium-term scheme plans.
- Ensuring curriculum progression ladders are shared and understood by staff.
- Monitoring and evaluating the implementation and impact of the Computing curriculum
- Ensuring appropriate resources are available and regularly updating them within the limits of the school budget and according to needs
- Keep up to date with new developments in Computing and attending relevant CPD
- Disseminating information, as it is received from any external source, to staff and children
- Encourage other members of staff in their Computing teaching and give support where appropriate
- Ensure that Computing maintains a strong profile within the school, through displays etc
- Keep a portfolio for Computing that will include photographs of children at work, curriculum walk reports, examples of planning and examples of children' work

Teachers are:
- Responsible for planning and delivering the Computing curriculum in line with the school long term and medium-term schemes of work.
- Delivering high quality and interactive teaching which facilitates progress.
- Accurately assessing pupil progress and attainment in line with school expectations.
- Maintaining a sample of computing teaching and learning within the Interactive Floor Book for the year group

We use a variety of teaching and learning styles in our Computing lessons. We use whole-class teaching methods and we combining these with practical activities.

Planning
Computing teaching and learning is the responsibility of the class teacher and may sometimes be delegated to the PPA team. The curriculum map identifies the progression and sequence of key concepts to be taught in this subject. It is the class teacher's responsibility to use the curriculum map to plan and deliver well sequenced lessons.

In planning, the delivery of the curriculum will be differentiated to allow for children of all abilities.

The teaching pedagogy should be:

- Highly kinaesthetic.
- Accessible to *all* abilities with opportunities for each child to personally achieve, progress and excel.
- Relevant and topic based where relevant and appropriate.
- Contain regular opportunities for reflection, evaluation and assessment; both peer, self and teacher
- Enjoyable (for both children and teachers!)

Early Years Foundation Stage
In the nursery and reception classes, Computing is taught as an integral part of curriculum delivery. In EYFS Computing is about the children exploring technology around them and developing skills to use technology to support their learning.

Key Stage 1
In Key Stage 1, children begin to understand algorithms and how they are implemented as programs on digital devices. They learn to programme and debug these programs and use logic to predict the behaviour of simple programmes. Chidlren will also use a range of programmes/Apps creatively to enhance their learning. Under[inning the whole computing curriculum is our digital literacy themes (e-safety) this ensures children are taught to 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.

Key Stage 2
In Key Stage 2 children will increasingly develop skills in writing and debugging computer programs and enhance their skill in simulating systems, games and working with variables, They will be taught to understand how computer systems work and use search technologies effectively and safety. They will select, use and combine a variety of software to design and create a range of products and work creatively. E-safety will be an integral aspect of all teaching and learning.

Differentiation
We aim to encourage all children to reach their full potential through the provision of varied opportunities and responding and adapting our teaching to the children's individual needs. We recognise that our curriculum planning must allow children to gain a progressively deeper understanding and competency as they move through our school.

Resources
Our school has an excellent computing resources and Internet access.

All school software is installed on PCs across the network and teachers are provided with classroom and home use laptops and a staff IPad. They sign an agreement form before taking this hardware home and work on a remote access system which is compliant with the school GDPR protocols. Teachers should not use external storage devices unless supplied by school and encrypted. In order to keep our school computers virus-free, no software from home will be installed on school computers. Pupils bringing in work on portable storage disks must first have it scanned.

We have a service level agreement with One IT to manage and support our IT provision. Members of staff report faults using the One IT helpdesk program, located on the school system. The technician will also set up new equipment, and install software and peripherals.

Impact
Our Computing curriculum is fun and enjoyed by learners, well-resourced and planned to demonstrate progression through Key Stage 1 and 2. In addition, we measure the impact of our curriculum through:

- A reflection on standards achieved against the planned outcomes;
- A celebration of learning which demonstrates progression across the school;
- Tracking of knowledge in pre and post learning activities;
- Pupil discussions about their learning.

Monitoring and Evaluation

To monitor and evaluate Computing the subject leads will:

- Support teachers via explaining the progressive curriculum map, discussing the key concepts in Computing, co-planning, team teaching, observing and giving feedback.
- Monitoring the delivery of medium-term planning against the progression contained in the curriculum map. Engaging in monitoring strategies such as work sampling, pupil voice review and lesson observations.
- Review and advise the SLT on Computing resource provision.
- Works co-operatively with the SENDCo to provide support for children with SEND.
- Discuss regularly with the Head Teacher the progress with implementing this policy in the school.
- Maintain samples of work collated from Year Group Interactive Floor books into a portfolio of work for Computing.

Assessment

Assessment forms an integral part of the teaching and learning of Computing. This will be done by observing children working, by listening to their responses to questions and by examining work produced in relation to the expectations set out on our curriculum maps.

Teachers assess the children's work in Computing both by making informal judgements as they observe them during lessons and by completing formal assessments of their work, gauged against specific end points set out for each year group using the Target Tracker system.

Health and Safety

- Equipment is maintained to meet the agreed safety standards.
- Children will **not** be given the responsibility of plugging in ICT equipment.
- Age appropriate safety rules are displayed in the learning environment. Food and drink should not be consumed near ICT equipment.
- It is the responsibility of staff to ensure that classroom ICT equipment is stored securely, cleaned regularly and that their class or themselves leave the ICT Suite clean and tidy after use.
- Staff should ensure that the children are aware of the dangers of continuous use (e.g. Eye/wrist strain etc).

Equal Opportunities

All children will be given equal access to Computing irrespective of race, gender and creed, level of ability or nationality. The Computing curriculum will be differentiated according to the needs of the children. If a child needs specialist equipment or software to access the curriculum, the school will source the appropriate equipment.

If a child has an EHCP plan and is not able to access the curriculum at the same level as his/her peers, then provision will be made for the child to access the curriculum at their own level. If a child is identified as being more able , in this curriculum area, they will be challenged in their learning.

Disability Equality Impact Assessment

This policy has been written with reference to and in consideration of the school's Disability Equality Scheme. Assessment will include consideration of issues identified by the involvement of disabled children, staff and parents and any information the school holds on disabled children, staff and parents.

Policy Monitoring and review

The Computing leads report to the head teacher upon the progress of Computing in the school and the head teacher in turn, discusses Computing with school governors.

Any questions or concerns regarding this policy should be made to the Head Teacher