



Barley Fields

Primary School

Computing Curriculum Policy

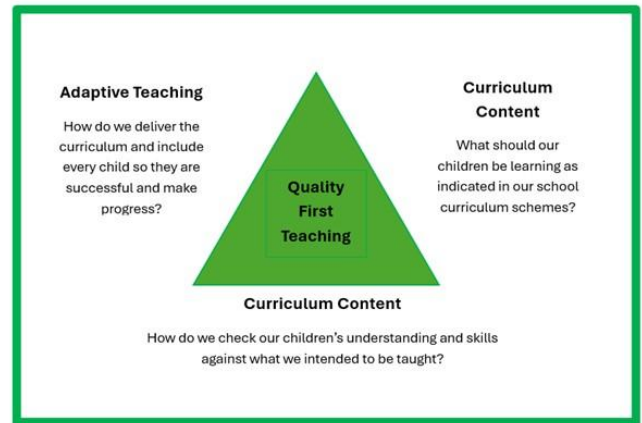
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1. Curriculum Statement

At Barley Fields Primary we have designed our Computing curriculum based on a curriculum model by John Tomsett (2023).

Quality first teaching is the primary function of our school and we use a teaching model that includes an inter-relationship of three pedagogical aspects: **Subject Content, Adaptive Teaching and Effective Assessment.**

Subject content for Computing is coherently planned and progressively sequenced for all subjects and meets the statutory requirements of the National Curriculum and more. Differentiated layers of curriculum planning are effective in supporting teaching and learning across the school and teaching resources have been created with a consideration of the foundational knowledge, vocabulary and skills children need to achieve well. Planned lesson content is sequential and extends/builds on previously taught knowledge and skills.



Intent - This is what we want for our children.

At Barley Fields, it is our mission to prepare our children for a future in technology. We know that in this rapidly evolving digital landscape, our children need more than just basic skills- they need to be masters of the digital world. That is why we are committed to nurturing their confidence and competence in computing.

At our school, we don't just teach technology; we inspire a love for it. We encourage our children to dive headfirst into the digital world, exploring and creating with enthusiasm whilst also prioritising the importance of responsibility. Our children become respectful and mindful users of technology, always aware of its power and pitfalls.

We strive to challenge our students: we want them to embrace failure as a stepping stone to success. In our classes, we aim for children to think critically, solve problems with increasing independence and to never back down from a challenge. We aspire for our children to become the future pioneers of the digital age.

We hope to empower our children to be thoughtful decision-makers when it comes to using technology. We want them to understand that technology isn't always the answer and that sometimes the best solution to a problem is a more traditional approach. We aim for children to consider the pros and cons of using technology in different scenarios. Whether its deciding if they tackle a problem with the help of an algorithm or rely instead on a pen and paper, we want our students feel confident in the choices that they make. Our goal is to teach children to recognise when technology can enhance their lives or when it may be better to go without. Children at Barley Fields will also have an understanding of how their digital lives can have an impact on their health and well-being. After all, being a digital native is about more than just knowing how to use a computer: it is about living a balanced and fulfilling life in the digital world.

We are proud to offer a curriculum informed by the latest research that undergoes constant reviews and updates to ensure its relevance and effectiveness. We are committed to offering our children a computing curriculum that prepares them for their future.

Our children understand the core skills needed to learn in Computing with the use of the school curriculum character – Computing Cleo. This character is regularly used to encourage children to reflect on the key skills needed when working within Computing.

**Early Years
Computing Cleo**



- ✓ I enjoy exploring and using technology.
- ✓ I can talk about technology at home.
- ✓ I can talk about technology at school.
- ✓ I am beginning to understand how technology has changed over time.

**Key Stage 1
Computing Cleo**



- ✓ I enjoy using information technology to create and design.
- ✓ I can use algorithms to explore and debug simple programs.
- ✓ I can use technology safely.
- ✓ I can choose when to use technology.

**Key Stage 2
Computing Cleo**



- ✓ I enjoy collecting, analysing, evaluating and presenting information using appropriate software.
- ✓ I can design, write and debug programs that work effectively.
- ✓ I can use computer networks to collaborate and communicate.
- ✓ I can use technology safely, respectfully and responsibly.
- ✓ I can choose when technology is most effective in completing a task.

2. Roles and Responsibilities

Computing Leadership

The Computing leads are responsible for:

- Formulating and updating the computing 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 curriculum map – long term scheme of learning and 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 Floor book for Computing that will include photographs of children at work, curriculum walk reports, examples of planning and examples of children's work

Teachers are responsible for:

- Planning and delivering the Computing curriculum in line with the school long term and medium-term schemes of learning
- Delivering high quality, interactive and adaptive teaching which facilitates children's progress.
- Accurately assessing children's 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

3. Teaching Pedagogy and Curriculum

Our children follow a carefully structured computing curriculum which has been designed to ensure children know more, can do more and remember more as they progress through our school. Our curriculum is built around five strands of learning that are revisited every year:

- Computer systems and networks
- Programming

- Data and Information
- Creating Media
- Digital Literacy and Online Safety

The curriculum has been designed using content from the National Curriculum and the Teach Computing scheme devised by The NCCE (The National Centre for Computing Education). This has been selected because it has been created by subject experts and is based on the latest pedagogical research however, we have adapted it to suit the needs of our children.

The computing curriculum is a spiral curriculum and each of the strands is revisited every year with a new unit where the children are given the opportunity to consolidate and build on prior learning within that theme. The curriculum has been designed to support all pupils: lessons are sequences to build on the learning from the previous lesson, activities are scaffolded so that all pupils can succeed and project-based tasks foster a deeper understanding of a concept, encouraging children to apply their learning in different contexts and make connections to other learning experiences. Embedded within the medium-term planning are a range of pedagogical strategies which also support staff in making computing accessible to all learners. Lessons are taught in blocks to ensure children have opportunities for a sustained period of study and have time to embed and enhance their learning. In addition to this, many of the resources, software and activities can be accessed for free from home meaning learning isn't just confined to school. In our teaching of computing, we endeavour to expose children to a variety of software, programs and equipment. As a school, we have invested heavily into resourcing this: children have access to their own iPads and are given responsibility for them. They have to ensure it is charged, use it responsibly and be aware of their digital footprint.

At Barley Fields Primary School, we have moved away from the traditional differentiated approach to teaching and learning and we have adopted the adaptive teaching model, which emphasises high challenge for all. In computing we employ a variety of teaching and learning styles in our lessons. We use whole-class teaching methods and we combine these with practical activities. 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.

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!)

4. Curriculum Progression

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. Children will also use a range of programmes/Apps creatively to enhance their learning. Underpinning 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 safely. 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.

5. Assessment

Assessment forms an integral part of teaching and learning in Computing. This is done formatively as part of the adaptive teaching model used in school; observing children working, 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 and age-related expectations using the SONAR system. Summative assessments are reported on SONAR annually for whole school analysis and tracking of pupil progress.

6. Inclusion - Equal Opportunities and SEND

All children will be treated equally and will be given equal access to the Computing Curriculum irrespective of gender, ethnic origin, disability, culture or socio-economic background. All children will be treated with respect and spoken to in a positive manner.

The Computing curriculum will be adapted according to the needs of the children. If a child needs specialist equipment or software to access the curriculum, the school will, when practically possible, 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.

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.

7. Resourcing

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.

Children from Year 2 to Year 6 are issued with an iPad to support teaching and learning and to assist with the implementation of the computing curriculum. We have an IT suite with 20 computers and specialist hardware such as beebots, crumble and Lego are allocated to individual year groups.

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.

8. Monitoring and Evaluation

The monitoring of the standards of children's work and the quality of teaching in Computing is the responsibility of the subject team. To monitor and evaluate the curriculum provision and outcomes in Computing the subject leads will:

- Support teachers by explaining the progressive curriculum map, discussing the key concepts and skills in Computing, co-planning, team teaching, observing and giving feedback.
- Monitor the delivery of the curriculum against the progression contained in the medium-term schemes of learning.
- Advise the SLT on Computing resource provision.
- Work 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.

9. Health and Safety

- Equipment is maintained to meet the agreed safety standards.
- Children will **not** be given the responsibility of plugging in IT equipment.
- Age-appropriate safety rules are displayed in the learning environment. Food and drink should not be consumed near IT equipment.
- It is the responsibility of staff to ensure that classroom IT equipment is stored securely, cleaned regularly and that their class or themselves leave the IT 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).

Policy Monitoring and Review

This policy will be reviewed at least every two years.

Any questions or concerns regarding this policy should be made to the Head Teacher or a member of the computing team.