Barnes Infant Academy

Computing – Policy on a Page

Intent

At Barnes Infant Academy, our computing curriculum is designed to ensure children understand how digital technology works, how it affects their lives, and how to use it safely, responsibly and creatively. Our computing curriculum is written specifically for Barnes Infant Academy, recognising that our children are growing up in an increasingly digital world and need secure foundations in both technical knowledge and digital responsibility.

We recognise that children enter school with varied experiences of technology. Therefore, our computing curriculum is carefully planned to build knowledge progressively, prioritise vocabulary and oracy, and develop confidence and resilience when using technology. Our intent is for children to understand key computing concepts, create and debug simple programs, and develop a strong understanding of online safety. This carefully sequenced curriculum ensures children leave Barnes Infant Academy with the secure knowledge, vocabulary and learning behaviours needed to succeed in Key Stage 2 and beyond.

Curriculum Design & Sequencing

Our computing curriculum is knowledge-led and carefully sequenced from EYFS through to Year 2. Within the revised EYFS statutory framework, the *'Technology'* strand within *Understanding the World* has been removed. However, there are opportunities within each area of the framework to enable teachers to effectively prepare children for studying the computing curriculum. Learning begins in the EYFS with exploring technology in familiar contexts, producing creative outcomes and understanding simple cause-and-effect before progressing to structured programming, data handling and digital literacy.

Computing knowledge is broken into small, manageable steps and revisited over time so that learning builds cumulatively. Children move from practical, unplugged experiences to, for example, structured programming tasks, developing understanding of algorithms, sequencing and debugging through repeated exposure and practice. In Key Stage One, we have primarily chosen to use Purple Mash to deliver a comprehensive curriculum providing full coverage and a variety of skills for our children. Purple Mash is a child friendly computing system that mirrors a lot of programmes seen in the 'real' word *(e.g. font buttons are the same, email formats are the same)*. By using Purple Mash we are exposing the children to real-word systems but giving them freedom to explore using a child-friendly interface. It is also safe in terms of who and what they can access. Online safety is embedded throughout the curriculum rather than taught as isolated lessons. We use Project Evolve to deliver our Online Safety lessons and to meet the requirements of the Education for a Connected World framework. This deliberate sequencing enables children to make meaningful connections between prior and new learning, building a secure foundation for future computing learning in Key Stage 2.

Whole class floor books are used to evidence computing work, and allow children to reflect on their learning throughout the year.

Vocabulary, Oracy & Communication

Vocabulary and oracy are explicitly prioritised within our computing curriculum. Subject-specific vocabulary is carefully selected, taught explicitly and revisited regularly to support children's understanding of programming, digital systems and online safety.

Teachers model the use of precise computing terminology and provide structured opportunities for children to explain how programs work, identify and correct errors, and describe how digital devices process information. This ensures children move beyond simply using technology to understanding it.

This approach supports all learners, particularly those with EAL, and ensures children can access, understand and communicate computing knowledge with confidence.

Inclusion

Our computing curriculum is designed inclusively from the outset. Lessons are planned to reduce cognitive load, use clear modelling, and provide practical, visual and language-based scaffolds to support learning.

Adaptations may include:

- Pre-teaching and revisiting key computing vocabulary
- Use of unplugged activities to secure conceptual understanding
- Step-by-step modelling of programming tasks
- Regular retrieval of core knowledge
- Flexible ways for children to demonstrate understanding
- Open ended tasks allowing for children to explore as far as comfortable

We ensure that access to technology does not become a barrier to learning and that all children develop confidence and resilience when working digitally.

Enhancement & Cultural Capital

Carefully selected experiences are used to enhance and deepen children's understanding of computing. These experiences align closely with curriculum content and sequencing, ensuring all children have equitable access to meaningful digital learning opportunities.

Enhancements may include:

- Use of programmable devices and age-appropriate software
- Opportunities for digital creativity such as animation or simple coding projects
- Engagement with national online safety initiatives such as Safer Internet Day

Where appropriate, links are made to real-world technology and careers so children begin to understand the role computing plays in everyday life and future employment.

Impact

As a result of our computing curriculum, children at Barnes Infant Academy:

- understand how simple algorithms and programs work
- create and debug simple programs
- use subject-specific computing vocabulary confidently
- understand how to stay safe when using technology
- apply logical thinking to solve problems

This policy reflects our Barnes curriculum drivers of Belonging, Communication, Curiosity and Resilience.