Birdwell Primary Computing Policy

EDUCATE. EMPOWER. INSPIRE.

Intent

Our approach to the Computing curriculum is through discrete lessons. Where meaningful links can be made, it enhances learning throughout the curriculum, underpinned by the HCAT accelerated learning approach to teaching and learning.

The key concepts, principles and themes have been developed from the National Curriculum into a range of progressive knowledge that are vital for children to explore. At Birdwell, we believe it is important to ensure children are using software correctly and that these basic skills are embedded from a young age in order for children to succeed in the modern world.

The progressive document for Computing allows teachers to see what these vital skills are so children can confidently use software of their choice later on in their school journey. Alongside this there are opportunities for children to learn about E-Safety and explore different uses of technology in the wider world. Coding is also taught throughout school, ensuring that children develop their understanding of algorithms and programming.

The computing knowledge and skills are taught covering 5 main areas:

- Computing systems and networks
- Creating media
- Programming
- Data and information
- E-Safety

The Computing curriculum we offer is designed to meet the needs of all our pupils. It is rich, varied, imaginative and ambitious and meets the needs of individual learners by can easily be adapted for pupils with additional needs.

Our Computing curriculum is designed to equip pupils with the knowledge, skills and understanding necessary to thrive in an increasingly digital world. We aim to develop pupils' computational thinking and creativity to understand and change the world around them. Our intent aligns with the national curriculum for computing, which aims to ensure that all pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic and algorithms.

In Key Stage 1, pupils will be taught to understand what algorithms are, how they are implemented as programmes on digital devices and that programmes execute by following precise and unambiguous instructions. They will create and debug simple programmes and use logical reasoning to predict the behaviour of simple programmes. As pupils progress through the key stages, they will develop their skills in computing systems and networks, creating media, data and information and programming. We aim to develop responsible, competent and confident users of information and communication technology, capable of analysing problems in computational terms and creating solutions through practical coding experiences. By the end of their journey through our computing curriculum, we intend for our pupils to be digitally literate, with the skills to express themselves creatively, solve problems systematically and understand the implications of technology in society.

Implementation

Computing is taught discretely, but is embedded across the whole curriculum and permeates many subjects. It is used in many curriculum areas and has raised interest, self-esteem, creativity and aspirations of all children. The Computing curriculum is rich and varied and provides our pupils with the skills required to succeed in later life.

The Accelerated Learning Cycle, based on the work of Alastair Smith, is applied in all lessons. It stems from the idea of a supportive and challenging learning environment. The cycle has active engagement through multi-sensory learning, encourages the demonstrating understanding of learning in a variety of ways and the consolidation of knowing.

Our curriculum organisers support the planning and delivery of lessons to ensure children develop a deep, sequential understanding of specific knowledge and are able to apply these in a range of situations.

Our curriculum is designed with a core focus on retrieval practice, recognising its pivotal role in helping students know more and remember more. This intent is actualised through a dual approach: integrated retrieval within individual lessons and a structured, subject retrieval practice rota. In-session retrieval activities are carefully crafted to reinforce key concepts and knowledge, promoting immediate recall and application. Complementing this, our weekly retrieval practice rota systematically revisits content across various subjects, ensuring spaced repetition and interleaving of crucial information. This comprehensive strategy aims to strengthen neural connections, facilitate the transfer of knowledge to long-term memory and build increasingly complex mental models. By embedding retrieval practice as a fundamental aspect of our curriculum, we strive to enhance our pupils' ability to retain, recall and apply their learning effectively, thereby fostering deeper understanding and more robust academic progress.

At Birdwell, our curriculum is ambitious for all pupils, including those children with SEND. Curriculum designers and teachers have high expectations of what SEND pupils can achieve and the curriculum is not diluted or unnecessarily reduced for SEND pupils. Every pupil is different and so what works for each pupil varies. Pupil's individual needs are considered and adaptations are planned to ensure the success of pupils in all subjects.

The way that our curriculum is designed ensures that chunks of learning are sequenced in a coherent way to enable all pupils, including those with SEND, to build on prior knowledge. Too much information at once can be a barrier to learning which is one of the reasons why we have chosen half termly curriculum drivers.

Where pupils are identified with having complex needs it may be appropriate to provide a personalised curriculum which will be based on individual needs and will retain ambition for the pupil. Where working memory is an issue for pupils, including those with SEND, we look to reduce extraneous load as much as possible as well as identifying key information when teaching. This helps pupils to pay attention to the content which they are expected to learn.

Adaptations to support individual pupils will be recorded on personal school support plans. Pupils specific needs determine the types of adaptations which are required. These adaptations are in how the subject is taught rather than the content pupils are expected to learn. Where appropriate, learning will be chunked into smaller steps and pre-learning and consolidation time in planned in to support need. Adaptations may include supporting pupils to pay attention to key aspects as well as reducing excessive or unhelpful demands on working memory. Time is also planned to ensure pupils with SEND are pre-taught instructions and vocabulary to support their understanding.

Impact

Formative assessment is ongoing throughout each lesson. It judges progress and enables teachers to make flexible adaptions to their planned teaching.

Through this regular ongoing assessment, tasks are matched to the ability of each child through adapted activities and including adult support, providing a level of challenge that is stimulating for pupils and questioning skills

Our schools are dedicated to providing a high-quality curriculum that is ambitious for all pupils. We have a robust system in place to ensure children are making strong progress in their foundation subjects using the

Arbor MIS platform to conduct summative assessments at key points in the year. The purpose of these assessments is for our subject leaders and teachers to analyse pupil understanding against our assessment statements, which are progressively devised from our taught curriculum. This allows children to acquire knowledge that builds upon the fundamentals of their prior knowledge in a well-designed curriculum sequence.

Key Responsibilities for Computing:

All staff

All staff will:

- Ensure that they are up to date with the school policy and curriculum requirements regarding Computing.
- Attend and engage in professional development training around Science provision, including individual and whole staff training/inset, where appropriate.
- Attend staff meetings to be introduced to any new areas of work and review the effectiveness of the approaches used.
- Report back to Computing Lead on any areas they feel are not covered or inadequately provided for in the schools Computing provision.
- Tailor their lessons to suit all pupils in their class, across the whole range of abilities, including those pupils with special educational needs.
- Ask for support in this from SEND coordinator or the Computing Lead, should they need it.

Subject Lead:

- Review the policy on a yearly basis.
- Keep staff up to date on any policy changes.
- Ensure that all staff re able to access and deliver the curriculum.
- Identify training needs and arrange or deliver said training.