WE THRIVE IN

Computing

What a computer is to me is the most remarkable tool that we have ever come up with. It's the equivalent of a bicycle for our minds." Steve Jobs

Intent

- INTENT

- At Woodchurch C of E Primary School, we aim to develop **digital leaders** who are equipped with the knowledge, skills and confidence to thrive in an ever-changing technological world. We recognise that technology is central to modern life and believe that a high-quality Computing education enables pupils to participate safely, responsibly and creatively in the digital world.
- Our ambitious Computing curriculum, delivered through the Kapow Primary scheme of work, inspires pupils to become curious, explorative and resilient learners who think like computing experts. We encourage children to question, investigate, solve problems and apply computational thinking to real-life situations. By developing creativity, logical reasoning and analytical skills, pupils learn how technology shapes lives locally, nationally and globally and how they can use their knowledge to contribute positively to their community and the wider world.
- The curriculum is carefully sequenced to develop both **declarative knowledge** (knowing) and **procedural knowledge** (doing). Pupils gain a secure understanding of key computing concepts such as algorithms, programming, networks, data, digital systems and appropriate technical vocabulary. Alongside this, they develop the practical skills to write and debug programs, create digital content, use a range of software confidently, handle data effectively and apply technology purposefully to solve problems.
- Our curriculum follows the National Curriculum (2014) through the three interwoven strands of **Computer Science, Information Technology and Digital Literacy**, ensuring knowledge and skills are progressively developed from the Early Years Foundation Stage through to Year 6. Learning builds systematically over time, allowing children to revisit, strengthen and apply prior learning in increasingly challenging contexts.
- Digital literacy is at the heart of our curriculum. We are committed to ensuring that every child becomes digitally literate, able to communicate, collaborate, create and express themselves confidently using technology. Online safety is embedded throughout every year group, enabling pupils to recognise risks, evaluate online information critically and use digital technologies safely, responsibly and respectfully. We support every child in becoming a responsible, competent and discerning digital citizen who understands both the opportunities and responsibilities of living in an increasingly connected world.
- Our Computing curriculum also supports pupils' personal development by promoting spiritual, moral, social and cultural understanding. Children are encouraged to consider ethical issues surrounding technology, appreciate diverse perspectives, collaborate effectively and understand the impact that digital innovation has on individuals and society. Through learning about influential innovators, emerging technologies and real-world applications of Computing, pupils develop an appreciation of the diversity of the digital world and the positive role technology can play in improving lives.
- Guided by our Christian vision and values, we nurture children to demonstrate kindness, integrity, respect and responsibility both online and offline. Our curriculum actively promotes the fundamental British Values of democracy, individual liberty, mutual respect, tolerance and the rule of law through discussion, collaboration and responsible participation in digital environments. Inclusive representation throughout the curriculum ensures that all pupils see themselves reflected in Computing while developing an understanding and appreciation of different cultures, communities and experiences.
- Ultimately, we aim for every child to leave Woodchurch C of E Primary School as a confident, creative and reflective learner with the digital knowledge, skills and character needed to flourish in

secondary education and to become active, responsible citizens in an increasingly technological world.

Implementation

IMPLEMENTATION

At Woodchurch C of E Primary School, Computing is taught for **one hour each week**, ensuring full coverage of the National Curriculum through the carefully sequenced Kapow Primary Computing scheme. The curriculum is organised to provide clear progression in knowledge and skills from the Early Years Foundation Stage through to Year 6, enabling pupils to revisit, deepen and apply their learning over time.

Teachers use Kapow's unit hubs to support high-quality planning and delivery. These provide lesson resources, progression documents, vocabulary development, assessment opportunities and curriculum links, ensuring consistency and progression across the school. Each unit clearly identifies prior learning, future learning and cross-curricular opportunities, enabling children to make meaningful connections across subjects.

Lessons follow a consistent structure which supports effective learning:

- **Recap and Recall** activities begin every lesson, helping pupils retrieve previously learned knowledge, strengthen long-term memory and make connections between prior and new learning. Retrieval practice also enables teachers to identify misconceptions before introducing new concepts.
- **Attention Grabbers** engage pupils at the start of each lesson through questioning, discussion or practical investigations that stimulate curiosity and enthusiasm.
- **Main Learning** combines explicit teacher modelling, guided practice and independent or collaborative tasks, enabling pupils to develop both conceptual understanding and practical computing skills.
- **Wrapping Up** activities encourage pupils to reflect on their learning, revisit success criteria and apply their understanding in new contexts, consolidating knowledge and informing next steps.

Our curriculum develops both declarative and procedural knowledge through practical, hands-on experiences. Pupils progressively learn to program, debug algorithms, create digital media, collect and analyse data, use a range of software applications and understand how digital systems and networks operate. The three National Curriculum strands—Computer Science, Information Technology and Digital Literacy—are interwoven throughout each unit to ensure a balanced and comprehensive Computing education.

Computing is further enhanced through meaningful cross-curricular opportunities, enabling pupils to apply their digital skills across the wider curriculum. Technology is used purposefully to support creativity, communication, research, collaboration and problem-solving in a range of subjects.

Online safety is embedded throughout the curriculum rather than taught as a standalone topic. Children regularly revisit key messages about digital wellbeing, privacy, respectful online behaviour, cyber security and critical evaluation of online information, ensuring that safe and responsible use of technology becomes second nature.

Adaptive teaching is integral to every lesson. Kapow provides clear guidance to support teachers in meeting the needs of all learners, including pupils with SEND. Lessons incorporate:

- carefully scaffolded activities with increasing levels of challenge;
- multi-sensory approaches to engage different learning styles;
- clear modelling, structured instructions and manageable learning steps to reduce cognitive load;
- flexible grouping and opportunities for both collaborative and independent learning;
- appropriate challenge to enable every child to achieve success from their individual starting points.

The carefully sequenced curriculum avoids unnecessary leaps in complexity. Key concepts are revisited regularly, allowing pupils to strengthen existing knowledge before extending their understanding. This spiral curriculum enables children to make meaningful connections, build confidence and retain knowledge over time.

Assessment is an integral part of teaching and learning. Formative assessment is embedded throughout every lesson through:

- skilled questioning to probe understanding and challenge thinking;
- teacher observation of practical tasks and collaborative learning;
- purposeful discussion and pupil explanations;
- planned pause points to address misconceptions;
- retrieval activities that assess long-term retention;
- clear success criteria which support self- and peer-assessment;
- reflective plenaries that allow pupils to evaluate their own learning and inform future teaching.

Teachers use these ongoing assessment opportunities to adapt lessons, provide timely intervention and ensure that all pupils make strong progress throughout the Computing curriculum.

Impact

The impact of our Computing curriculum is that pupils leave Woodchurch C of E Primary School as confident, creative and responsible digital citizens who are well prepared for the next stage of their education and for life in an increasingly technological world. They demonstrate a secure understanding of Computer Science, Information Technology and Digital Literacy and can apply their knowledge confidently across the wider curriculum and in real-life contexts.

As pupils progress through the school, they develop increasingly sophisticated computational thinking skills, enabling them to design algorithms, write and debug programs, analyse data, create high-quality digital content and solve problems independently. They communicate effectively using technology, think critically about the digital world and understand how technology can be used safely, ethically and responsibly. Guided by our Christian vision and values, pupils demonstrate kindness, respect and integrity in their online interactions and understand the importance of making positive contributions to their communities both online and offline.

The impact of the curriculum is evidenced through pupils' confidence, independence and enthusiasm for Computing, as well as the quality of the digital outcomes they produce. Children are able to explain their learning using appropriate technical vocabulary, make connections with prior learning and demonstrate increasing resilience when tackling unfamiliar technological challenges.

Assessment is continuous and purposeful throughout the curriculum. Teachers use skilled questioning, retrieval practice, observation, discussion and interactive activities within lessons to assess pupils' understanding in real time and adapt teaching to meet learners' needs. These formative assessment opportunities enable misconceptions to be addressed promptly and ensure pupils make sustained progress.

At the end of each unit, pupils complete a Knowledge Catcher and Assessment Quiz, providing opportunities to demonstrate their understanding of the key knowledge and skills taught. Alongside pupils' written work, digital creations, programming tasks and practical outcomes, these assessments provide clear evidence of progress over time.

Teachers also evaluate pupils through verbal explanations, collaborative discussions and practical demonstrations, recognising that Computing is a subject where learning is often best evidenced through application as well as written recording. Progress is monitored using the Kapow Assessment Spreadsheet, enabling teachers and subject leaders to track attainment against learning objectives, identify strengths and address any gaps in learning.

The impact of our Computing curriculum is further reflected through lesson observations, pupil voice, work scrutiny and assessment information, ensuring that all children leave Woodchurch as digitally literate, responsible and aspirational learners who are equipped with the knowledge, skills and character to flourish in secondary education and beyond.