Computing Curriculum Statement

Intent

Our vision at Godwin is to prepare all our pupils for lifelong success. We believe a high-quality computing education should equip every pupil with the essential skills they will need to thrive in our ever-changing digital society, and to become responsible active digital citizens in their own right.

The National Curriculum separates the teaching of computing into three discrete strands: computer science (including computational thinking, use of logic and creating computer programs), information technology (including analysing, applying and evaluating different hardware and software tools to solve a variety of problems), and digital literacy (including safe and respectful behaviour while using information technology, including online safety). Through an ambitious and creative programme of study that carefully aligns with and outpaces the aims of the National Curriculum, we intend for every pupil at Godwin to meet the technological challenges they face with imagination, confidence and care, all-the-while staying mindful of personal safety and data privacy. We prioritise teaching lessons that always consider the intersection of wellbeing and technology, building skills in critical evaluation of digital content and vigilance to potential threats while exploring the World Wide Web. We aim to inspire a love for Computing by engaging our pupils in purposeful and meaningful learning experiences.

We offer a technologically rich and secure learning environment, where pupils can safely explore and tinker with a wide array of digital technologies, to build confidence and feel empowered not only in Computing lessons but in other curriculum areas, in their own lives and in future careers. We ensure that school IT systems, in use by staff and pupils, are up-to-date and compliant. We are committed to pursuing a place at the cutting-edge of digital delivery in the classroom, and remain in a constant process of review, appraising the latest developments in educational technology relevant to our context and the needs of our pupils.

Implementation

At Godwin we have adapted the National Centre for Computing Education's 'Teach Computing' curriculum, which ensures coverage of key concepts in a logical progression, to match our context, to provide more robust opportunities for consolidation of skills, and novel applications of skills taught within systems unique to our learning environment. For example, as a Rights Respecting School, pupils are explicitly taught how new skills are directly relevant to their rights, set out in the United Nations Convention on the Rights of the Child.

Lesson plans incorporate integrated curricular content from other subject areas, to connect discrete skills to real-world situations and make inter-disciplinary links between disparate concepts. We prioritise the development of responsible digital citizens who are aware of the potential risks and benefits of online platforms. We empower our pupils to make informed choices, to critically evaluate information, and to use technology ethically, ensuring they navigate the online world with confidence and resilience. This includes developing awareness of the 'digital footprint' we all leave when engaging with online services.

Computing lessons are delivered by specialist teachers, which reduces the impact of technological errors and misconceptions on learning time, and ensures that the facilitators are well-equipped to support with deep and relevant subject knowledge at all times. Specialist provision also results in high-quality differentiation, with every pupil having appropriate support and challenge in order to succeed. Through formative and summative assessments, teachers provide meaningful, individualised feedback which leads to a sense of accomplishment and motivates pupils to excel further.

The structure of computing lessons has been meticulously designed to ensure adequate time is given for consolidation of key skills, opportunities to 'tinker' curiously and safely with newly-introduced technologies, and most importantly, trial and improvement. Projects often improve the Learning Power of Collaboration as pupils work closely with others and so they develop skills in specialisation, oracy and other forms of interpersonal communication. Computer science, particularly programming, is principally an 'iterative' process. At Godwin we therefore ensure that pupils have adequate opportunity not just for application of skills but also for deep review, independent and collaborative evaluation, and revision or enhancement. This procedure is formalised in the PRIMM method (Predict, Run, Investigate, Modify, Make), an evidence-based project cycle for building proficiency in programming and computational thinking. This approach benefits pupils' meta-cognition (thinking about thinking), a skill set which carries over to many other areas of our integrated curriculum.

Impact

Within our computing lessons, Godwin children understand the relevance and importance of what they are learning as it applies to their own lives. They take great pride in their computing work, and this is shown in the quality of what they produce. Through on-the-spot verbal and written feedback, our pupils have a good understanding of their strengths and targets for development.

The components of the teaching sequences display quality opportunities for pupils to demonstrate fluency, reasoning and problem-solving; thus, computing is viewed as a thoroughly enjoyable subject, with children looking forward to exploring all three strands of the subject. Through our carefully planned curriculum, those who struggle with accepting self-made errors demonstrate that they develop self-confidence in embracing their mistakes, since the programming cycle depends entirely on debugging your code. The sense of success after focusing hard to identify how to overcome a bug in your code becomes an internally-motivated reward system.

The impact of our Computing curriculum is reflected in the preparedness of our pupils for their digital future. At Godwin, they develop the skills, knowledge and attitudes required to thrive in a rapidly evolving technological landscape. We aim to ensure all pupils leave our school equipped with the tools they need to succeed in secondary education and beyond, embracing opportunities in the digital world with confidence. We empower them to become lifelong learners, adaptable problem-solvers, and responsible digital citizens, setting them on a path to achieve their full potential in an ever-evolving digital society.