Crowmarsh Gifford C of E Primary School & Pre School

Crowmarsh Gifford Approach to Computing

This guidance outlines the teaching, organisation and management of the Computing curriculum taught and learnt at Crowmarsh. The implementation of these guidelines is the responsibility of all teaching staff.

INTRODUCTION

Our overall aim at Crowmarsh School is for children to enjoy their learning journey. We put children at the centre of everything we do, ensuring they understand learning as an active process in which theirs is a central role. We teach them how to become effective learners by helping them to think about their own learning more explicitly, teaching them specific strategies for planning, monitoring, and evaluating. They begin by learning how to be effective learners and as they progress through year groups this becomes a strong work ethic that has far-reaching impact on secondary school life and beyond.

SCHOOL VISION

A community supporting children to care, grow, persevere and shine.

INTENT

Also see:

Subject Intent Statement

At Crowmarsh School, it is our intent to prepare children for a rapidly changing future where technology is an integral part of daily life. We want children to be curious about technology, and we recognise that Computing education develops computational thinking and an ability to understand the digital world.
Computing allows our children to progressively develop skills in Computer science so that they can think logically and solve problems. Through digital literacy children learn to explore, communicate and present information on a range of applications.

E-safety is key to our Computing curriculum. Our approach ensures that we teach our children to behave responsibly and keep themselves safe online.

We want our children leave Crowmarsh School with the Computing skills and knowledge needed for the next stage of their education and as responsible participants in a digital world.

Subject Aims

We use Kapow to deliver a progressive, spiral Computing curriculum. This allows for content to be revisited with increasing complexity and prior learning to be built upon. Kapow provides a structured computing curriculum based on the Computing National Curriculum and covers the 3 strands of Digital literacy, Information Technology and Computer science.

In conjunction with our PSHE and RSE curriculum, our Computing curriculum also meets the objectives of the DfE's Education for a Connected World framework in order to ensure that our children understand the importance of keeping themselves safe online.

The National Curriculum for Computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation *(Computer science)*
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems *(Computer science)*

- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems *(Information technology)*
- Are responsible, competent, confident and creative users of information and communication technology *(Digital Literacy)*

IMPLEMENTATION

Also see: Appendix 1 Computing Essentials

Subject Planning & Teaching

- We use the Kapow scheme of work which covers the three core areas of Computing: Computer Science, Information Technology and Digital Literacy
- The curriculum ensures a progression of skills and builds on previous learning
- Unit of works are taught over a small term with E-safety covered throughout the year
- We make real life and topic links wherever possible
- Whilst Computing is taught as a discrete subject we also incorporate the use of technology across all areas of the curriculum where children are encouraged to transfer skills
- Children have access to the hardware and software that they need to develop skills in digital systems and applications
- Children complete most Computing work on laptops, class iPads are also available for use
- Children are challenged and supported in Computing lesson
- Children are taught and use technical vocabulary
- Our Acceptable Use Policy ensures all IT equipment is treated with respect
- The school participates in the annual 'Safer Internet Day'

CG Computing Resources/Schemes

Kapow Computing curriculum
E-safety – links between the Kapow Computing curriculum and PSHE Jigsaw curriculum
EYFS – EYFS Framework

Subject Enrichment: See Teaching, Learning & Assessment Policy

Inclusion for all Children: See Teaching, Learning & Assessment Policy

EYFS Statutory Framework:

The EYFS framework promotes teaching and learning to ensure children's 'school readiness' and gives children the broad range of knowledge and skills that provide the right foundation for good future progress through school and life. Through this curriculum, children will be exposed to aspects of knowledge, skills and understanding that will be built upon once they enter the National Curriculum Programmes of Study.

Computing Curriculum Link to EYFS Framework:

In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately.
Three characteristics of effective teaching and learning are:
• playing and exploring - children investigate and experience things, and 'have a go'.
• active learning - children concentrate and keep on trying if they encounter difficulties, and enjoy achievements
• creating and thinking critically - children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

IMPACT

Standards of pupil work, assessment data and pupil feedback will help the subject leader and senior leaders review the impact of the Computing curriculum.

Standards of Pupil Work:
The subject leader will ensure they monitor the teaching and learning and hence the standard of work across the school, matching the knowledge, skills and understanding to the curriculum overview and age-related expectations for the subject.

Assessment:

At Crowmarsh we take the statements for secure understanding (working at age related expectations) and working beyond from Kapow for our assessment of Computing.

The learning objectives and success criteria in each planned lesson show how children might demonstrate what they have learnt. Ongoing assessment by the teacher, informs planning so that children learn and are challenged as they develop their skills. Methods of assessment can include teacher observations, discussion with pupils, self-assessment and peer assessment. Overall, children's progress in Computing is assessed termly against the secure understanding/ working beyond statements for each unit of work. Any child who is unable to independently and reliably meet the secure understanding statements is assessed as working towards age related expectations.

Pupil Feedback:
As part of the on-going review and development of our curriculum, the Computing Subject Leader will hold learning conversations with children; this will be done in a variety of ways. Our teaching staff value pupil feedback and, within lessons, will informally seek the children's thoughts and ideas about their learning.

Role of the Computing Subject Leader:

- To ensure a high profile of the subject.
- To produce an agreed curriculum statement that outlines the intent, implementation and impact for Computing within the Crowmarsh curriculum.
- To produce an agreed progression of content and skills within a curriculum overview, that takes account of the EYFS curriculum and National Curriculum.
- To produce and maintain an annual subject action plan.
- To support colleagues by advising them on planning; appropriate resources; teaching strategies; approaches to assessment; changes and developments within the subject.
- To model the teaching of Computing.
- To ensure a full range of relevant and effective resources are available to enhance and support learning.
- To ensure all IT equipment is kept in good working order and arrange for repairs as needed.
- To work with the headteacher and SBM to plan for new/ replacement IT equipment as needed.
- To monitor the standards of learning, supported by Senior Leaders i.e. through books, lesson observations, learning conversations, data analysis and ensuring that key knowledge is evidenced in outcomes.
- To develop own skills and knowledge through relevant courses; reading; accessing other sources of information and expertise.

Appendix 1 Computing Essentials

Computing Essentials	
Year Groups	Reception- Year 6
Time Allocation	45 mins – 1 hour per week
Resources	Kapow Computing

	Resources	In Every Lesson	Where Appropriate
INTENT	• Jigsaw	• Kapow scheme • WALT linked to the scheme	
IMPLEMENTATION	• Jigsaw	• Differentiation as appropriate • Opportunities for more challenging thinking • Opportunities for discussion • Model and expect correct use of vocabulary • Partner talk • Use of appropriate digital devices • Work saved as appropriate • Follow relevant school policies for acceptable use of IT	• Active Listening • Collecting non-IT based evidence for unplugged lessons • Tell your partner • Think time • Whiteboard responses
IMPACT	• Jigsaw • Teachers AFL records • End of puzzle assessment	• Questions to check understanding. • Scanning classrooms • Mini plenaries • Marking/feedback, where appropriate, in accordance with CG policy • Discussions with children. • Collaborative learning • Adapted planning for the next lesson. • Children's self and peer assessment	• Peer evaluation • Self-assessment • Flexible groupings. • Children's peer and self-assessments. • Quizzing