Curriculum Intent, Implementation and Impact Statement

Highworth Warneford School: Computing Department

Introduction – Overall Department Intent

The Computing department values the development of all learners and the curriculum subjects taught within our area which includes computer science and IT. These are all integral in ensuring our students receive a knowledge rich and inspirational curriculum that equips them with a broad and balanced experience of the technological and cultural diversity of the world that we live in.

Department implementation with the HWS 5 Keys to Curriculum Success

Knowledge, skills and mastery	Our curriculum underpins the whole school ethos of providing students a knowledge rich and challenging educational experience. We enhance the requirements of the National Curriculum for England by continually evaluating current schemes of learning to ensure we are stimulating national shifts and changes in cultures, to prepare pupils for everyday living. This in turn, allows us as a department to provide high quality challenging lessons through a wide range of themes to prepare them for the skills and knowledge they need to progress into future careers, thus developing academic excellent and aspiration.
	The Computing and IT curriculum in Key Stage 3 intends to submerge students into all factors of Computing and IT, including programming, digital literacy, practical skills and online safety. All KS3 pupils complete Baseline Tests to gauge prior/current capability in the subject. Within KS3 pupils will study topical components of all three subject disciplines, which is outlined in our curriculum maps, to allow them to experience the depth and range of these specialist areas as well as ensuring students cover all requirements of the Computing National Curriculum.
	At Key Stage 4 students have the opportunity to prove excellence and to further their study of Computer Science and IT by opting to study qualifications in these respective subjects. Compulsory curriculum for all students includes core computing with is based on the Inspiring Digital Enterprise Award (iDEA). These core lessons are interspersed with key digital skills, such as, word processing and spreadsheet skills which are key skills to support other aspects of the wider curriculum as well as making all students ready for further training and employment.
	The curriculum has been designed as a student-centred curriculum, covering age-appropriate topics and practical skills to address the needs of each year group, i.e., Term 1 Year 7 would need an introduction to secondary school systems. Lessons are scaffolded to ensure all students including pupil premium, FSM, EAL and SEN, can access the learning and skills required, and students are challenged throughout lessons. We are continually working in partnership with teams outside the faculty to ensure a smooth transition and appropriate progression and challenge between KS2, KS3 and KS4.
	Topics are reviewed annually to ensure the curriculum remains at the cutting edge of technology. They build upon previous learning and will enhance each student's knowledge and skills with the intention of preparing them for further education and the outside world. There are cross-curricular links within each subject, which expand the learning and promote the breadth and depth of pupil knowledge. Students study Data Representation which develops a cross-curricular link with Maths. Assessment provides opportunities for students to reflect upon their learning journey, review and check their progress and retention of knowledge through retrieval practice and personal learning checklists.
Literacy and numeracy	High levels of literacy, articulacy and numeracy are fundamental in ensuring excellence for our students in all Computing disciplines. Across the academic year, there are a wide range of reading opportunities through topic texts designed to encourage both literacy and cultural awareness. At KS3, we have planned strategic reading tasks that are topic specific linked to the current scheme of work and which allow all students access to a wide range of genres. This encourages students to practise extracting relevant information and deepen their knowledge then demonstrating their comprehension by completing knowledge retrieval quizzes for each. Over time the intention is that students will link thoughts and opinions to their learning and develop a sense of depth and breadth to their experiences of the role of technology and business in the wider world. At Key Stage 4, students engage in written responses and discussion in class which explore their interests and opinions.

	Extended written responses are a critical element across all subject disciplines. At KS4, students are supported in developing the skill to write an extended written response at every opportunity, including in the form of lesson activity and fortnightly homework.
	Tier 2 and 3 vocabulary is explicitly taught and modelled by teachers. Students are expected to use technical language in both oral and written answers. Key word lists are available for all students to refer and use to increase technical justification and explanation.
	Cross-curricular links with English and Maths are identified and acknowledged at relevant points in the curriculum, e.g., Binary and Boolean Logic (Maths), Audience and Purpose (English).
Entitlement and engagement	In Computing, we echo the whole school vision and the school values of ICE (Integrity, Challenge and Excellence). Through our schemes of work we have produced a learning journey to outline this. Students are guided through their curricula with big-picture with each component of learning, complemented with topic PLCs (personalised learning checklists). These outline all the content covered within each unit and allow students to track and reflect upon their level of understanding and achievement. Enhancing this further, students are entitled to engage in extra-curricular activities. Our curriculum is flexible enough to take advantage of competitions and extra-curricular opportunities as they arise. Examples include participation in the Code Club. We also provide the opportunity for students to get need skills from external visitors, especially STEM Robotics in collaboration with the careers department. All classes throughout Computing are taught as mixed ability classes, where support is offered within lessons to ensure that the individual needs of pupils are fully met. The exception is Year 9 where we use the sets for maths to adapt learning. Our higher prior attaining students have enhanced exposure to Computer Science topics preparing them to doing Computer Science at KS4. All subjects at KS4 that Computing offers are optional, and chosen during the options process. The uptake is highly positive across our subject disciplines.
Aspiration and wellbeing	Student well-being is at the heart of Computing and we are keen to widen our students' cultural exposure, to demonstrate integrity and magnify their own expectations and aspirations for the future. We encourage students to have an enquiring approach, questioning the world we live in and having opportunities to investigate all viewpoints thus providing balance. Our aim is to provide pupils with the transferable skills they need to progress to their next steps, as well as ensuring they are equipped for their everyday life by adapting our teaching to cultural shifts, considering SMSC (Spiritual, Moral, Social and Cultural), British Values and integrity.
	Students are inspired through in-school events. For example, they explore the importance of being safe online through the annual 'Internet Safety Day'. Collaboration with Marlborough college allows students to engage in computing which goes "beyond the curriculum". Students develop leadership skills, confidence, ambition and general interest in Computing subjects through external visits.
	Within the KS3 curriculum, topics such as 'mental health' and 'health and safety' are taught to ensure the whole-being of a student is addressed. All staff within the faculty are either tutors or pastoral leaders, supporting the whole school ethos and well-being both pastorally as well as in the classroom.

Community, respect and enrichment	In Computing, all students partake in regular online safety lessons as part of their curriculum which compliments the Trust Online Safety Policy. All students have to sign our acceptable usage policy. These are tailored to each year group and age range to encourage students to develop knowledge, awareness of community and respect online. This includes the impact of actions or events that can happen online and sign posting what to do if issues occur, with examples of lessons including social media, privacy and security. This helps students to form integrity. Through our links with STEM and Marlborough College we are developing curriculum for both students and staff development. We share legislation and policy to be included within the PSHCE curriculum for clarity of message to pupils in this important area of digital literacy and how we are influenced by it in our daily lives.

Curriculum implementation

- KS3 – 2 lessons per fortnight.
- KS4 options - 5 lessons per fortnight.
- KS4 core - 1 lesson per fortnight.