CURRICULUM INTENT

Computer Science

- **Challenge** lies at the heart of our curriculum. It goes beyond what is statutory or typical; students are encouraged to deepen their understanding of the fundamentals of their learning at every opportunity.
- Our curriculum is fully **inclusive**. All students have access to a broad range of experiences for as long as possible, regardless of prior attainment or additional needs.
- Our curriculum is **knowledge rich**, with subject curricula designed to ensure that any 'powerful' knowledge and skills that are critical to future success are regularly re-visited.
- Our curriculum is **expertly planned** and is therefore sequenced to enable students to build their knowledge and skills towards ambitious agreed end points.
- Wherever appropriate our curriculum gives students the opportunity to **personalise** their experience, thereby facilitating enjoyment and success for all.
- The importance of reading and wider **literacy** skills is a key thread that runs through our curriculum. As well as broadening students' vocabulary, all subjects will develop students' subject-specific literacy, so they can speak, read and write as, for example, a Historian, an Artist or a Physicist.
- A carefully considered and inclusive **extra-curricular** programme supports broader and deeper understanding of the taught curriculum, as well as developing the cultural capital our young people need to be global citizens.
- Students' **personal development**, including careers education, is central to our curriculum, through all subject areas, as well as PSHE lessons, tutor time, assemblies and off-timetable activities.
- Homework and summative **assessment** tasks are strategically designed to promote the concepts of regular review and spaced practice, therefore contributing to a long-term retention of knowledge and skills.

At the core of our Computer Science curriculum lies a commitment to challenge, excellence and enjoyment across the strands of Digital Literacy and Computer Science. We strive to encourage students to be engaged in the foundational principles of computing at every turn, deepening their thinking on what they see in their everyday lives and breaking down increasingly complex algorithms. We believe that all students irrespective of their starting points or additional needs are given opportunities to success within Computer Science and build the digital and computational thinking skills to support their future careers. We strive for our students to enjoy Computer Science and feel challenged in their studies.

Our curriculum is rich in knowledge, meticulously crafted to revisit essential knowledge and skills pivotal for future success covering similar topics in KS3, 4 and 5 constantly building on student knowledge and deepening their thinking. Lessons are carefully sequenced to plan for prior learning so students can make links between the topics they have learnt through their time at Marling.

Personalisation is key to both student enjoyment and success within Computer Science. We provide opportunities for students to tailor their learning journey, fostering both enjoyment and achievement whether this be to offer choice of context for programming tasks or feedback activities to support students to develop their skillset further. Subject-specific literacy, is woven throughout our curriculum, expanding students' vocabulary, and enabling them to articulate ideas with the precision of a computer scientist. Students are challenged to use key language in their verbal and written work to develop their confidence and fluency in talking like a computer scientist.

Students' personal development is interwoven into the curriculum with links to careers in some schemes of learning to empower students to program as they would in industry. Throughout KS3 in particular, we support students with their online safety, constantly updating our lesson materials based on new trends and challenges that are affecting students. This is built upon in KS4 and 5 through the PSHE and assembly program.

Summative assessment is used to check student understanding and attainment on an area of their learning. This is conducted in a combination of ways including theory tests, practical tests and project work. Students are given meaningful homework to support their retrieval and long term retention of their learning.