South Hunsley School – Computing Area Rationale

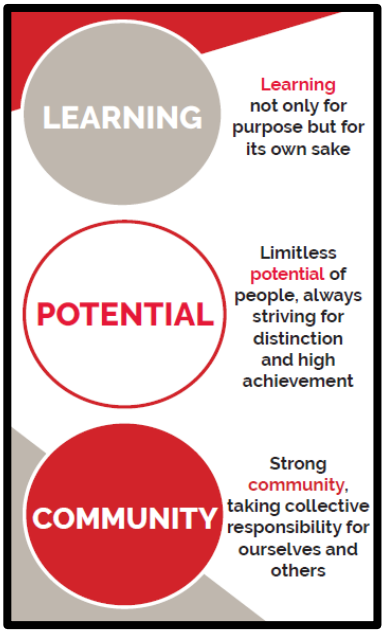
Our Values: Learning, Potential, Community

Welcome to the Computing Curriculum

"Everybody should learn to program a computer, because it teaches you how to think." (Steve Jobs)

There's barely an industry or enterprise operating in the United Kingdom that isn't making some, and increasing, use of data and computer technology on a daily basis. Everything from finance and banking, gaming and mobile applications, to healthcare and security, all require the specialist skills of professional computer scientists.

Students need to be literate in technology and familiar with computer programming as the jobs they will be working towards in the future will be more heavily reliant on these fields. Our Computing curriculum develops this literacy, allowing students to learn and think in whole new languages.



Computing at South Hunsley School

Our curriculum equips students to use computational thinking and creativity to understand and change the world. The core of Computing is Computer Science, in which students learn the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Computer science is both an art and a science: students will learn to think analytically, creatively, and structurally, which will bring benefits to all facets of their education and help .

Students are equipped to use information technology to create applications, websites, and programs. Computing also ensures that students become digitally literate in using software to a professional standard which will help support them in their future workplace and achieve their full potential. Digital literacy covers digital ethics, in which students will consider online interactions, safety, digital etiquette, and the protection of data.

By studying Computing, students will be confident and competent at using information technology. They will be responsible online community practitioners and will be fully aware of their digital footprint in the modern world. They will have a fundamental understanding of abstraction, logic, algorithms, and data representation. Our curriculum ensures that students will be confident in designing and producing their own digital artifacts such as applications, websites, games, dashboards, interfaces, documents for publication, and much much more.

Computing Curriculum Map

Curriculum Map: This maps a student's journey through school, from Year 7 to Year 11, showing the topics studied in each year.

Year 7	Year 8	Year 9
Computing Essentials	Online Safety 2	Online Safety 3
Online Safety 1	Text Based Programming 2	Options Taster Units
Visual Programming	Creative 2 - User Interface Design	
Computer Science 1	Basic Spreadsheets	Advanced Spreadsheets
Creative 1 – Introduction to Graphic Design	Computer Science 2	Text Based Programming 3
Flexible Unit Cyber Security (ML) Flowol (SS) Text Based Programming 1 (SH & DS)	***Flexible Unit*** iDEA (SS) Website Design (ML, SH & DS)	***Flexible Unit*** Legislation (ML) Website Design (SS) Blender (SH & DS)

	Year 10	Year 11
AQA GCSE Computer Science **(SH & DS)**	→ Computer Systems → Algorithms → Data Representation → Programming	→ Networks → Cyber Security → Ethics → Databases → Programming
BTEC Digital Information Technology **(SH, ML & DS)**	→ Component 1: Exploring User Interface Design Principles and Project Planning Techniques → Component 2: Collecting, Presenting and Interpreting Data	→ Component 2 Cont. → Component 3: Effective Digital Working Practices
OCR GCSE Computer Science **(ML & SS)**	→ 1.1 System Architecture → 1.2 Memory Storage → 1.3 Networks → 1.4 System Security → 1.5 System Software → 1.6 Legal & Ethical	→ 2.1 Algorithms → 2.2 Programming techniques → 2.3 Producing robust programs → 2.4 Computational logic → 2.5 Translators and facilities of languages → 2.6 Data representation
OCR Creative iMedia **(ML & SS)**	→ RO85: Creating a multipage website → RO81: Pre-production skills	→ RO82: Creating digital graphics → RO87: Creating interactive multimedia products