



Subject: Computing

Head of Department: Mr L Williams

Curriculum Intent

Hornchurch Highs KS3 computing curriculum is designed to prepare students for an ever-changing technological world. By equipping learners with an understanding of a wide range of threshold concepts, students are able to thrive in a range of KS4 curricula, whatever their aspirations may be for further education and later life. The curriculum is centred around developing core technical skills, whilst meticulously planned to ensure that pupils meet the key strands outlined in the national computing curriculum, in a manner that supports understanding and retention.

By key stage 4, learners are able to choose from a range of vocational or academic routes, regardless of their starting points. Learners are equipped with a technological skillset which supports them in their wider curricula, as Hornchurch High works to ensure that all subjects offered are up to date with the digital world.

Year 7 Topics

- Autumn Term 1 – E-safety
- Autumn Term 2 – Networking
- Spring Term 1 – Computer systems and binary
- Spring Term 2 – Computational thinking
- Summer Term 1 – Spreadsheets
- Summer Term 2 – Vector graphics

Year 8 Topics

- Autumn Term 1 – Cyber-security
- Autumn Term 2 – Websites
- Spring Term 1 – Media animation
- Spring Term 2 – App development
- Summer Term 1 – Python programming
- Summer Term 2 – Data visualisation

Year 9 Topics

- Autumn Term 1 – Marketing decisions
- Autumn Term 2 – Spreadsheets and finance
- Spring Term 1 – Promotional design
- Spring Term 2 – 3D Graphics
- Summer Term 1 – Digital graphics



- Summer Term 2 – Business, finance and planning

Year 10 Topics

- Autumn Term 1 – Computer systems
- Autumn Term 2 – Programming: Selection/Iteration/Subroutines/Strings and lists
- Spring Term 1 – Data representations
- Spring Term 2 – Algorithms
- Summer Term 1 – Programming
- Summer Term 2 – Impacts of technology

Year 11 Topics

- Autumn Term 1 – Networks and security
- Autumn Term 2 – Databases,
- Spring Term 1 – Python/HTML
- Spring Term 2 – Computer systems revision
- Summer Term 1 – Revision
- Summer Term 2 – Revision

GCSE Specification Details and Assessment:

OCR Computer Science (J277)

<https://www.ocr.org.uk/Images/558027-specification-gcse-computer-science-j277.pdf>

Spiritual, moral, social and cultural development (SMSC)

Example: We teach e-safety throughout KS3, developing pupil's ability to communicate digitally, whilst supporting them in navigating the digital world.

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