

Broadening Horizons

We aim to broaden horizons by introducing software tools that can be used for a wide range of purposes. Many of the tools introduced are free and available for students to use at home. We ensure that students understand how software can be used in the number of activities to encourage them to think about how what they learn in the classroom can be applied in a number of future careers including: IT Manager, Software Developer, Data Scientist, Web Developer and Information Security Analyst.

Careers

Immerse Yourself

Craig n Dave Videos

Students have access to a revision website called Smart Revise by Craig n Dave. This contains a range of multiple choice questions, exam style questions and flashcards.

The set of videos - which can be accessed via the QR code above covers the Computer Science course in more detail.

CLASSROOM LEVEL REWARDS

Praise and Reward
Awarded for: working hard, taking risks and being a challenge, making mistakes and learning from them, helping others, and taking pride in the school community.

Rewarded by: praise postcards, positive phone calls to parents/ carers, positive text messages home, and lesson based prizes.

SUBJECT LEVEL REWARDS

Reward scheme: star of the week, curriculum awards (Subject/ School Way, participation, working with pride, embracing the whole curriculum), high flyer, extra mile, most improved.

Rewarded by: names displayed on reward boards, certificates, social media posts.

Contact



BBC Bitesize Computer Science

BBC Bitesizes Computer Science GCSE OCR page is a fantastic learning tool for Y10 Computer

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COMPUTER SCIENCE
Curriculum Newsletter



Curriculum Intent

In Computing we aim to provide an engaging, challenging, well sequenced curriculum which is broad and balanced, covering a range of computing and ICT topics. We aim to develop our students into 21st Century Digital Citizens who are able to use technology effectively, responsibly, and to teach students both how to use technology effectively, with an understanding of how it works.

We aim to engender a positive attitude of learning, self-belief and aspiration through 4 key intentions:

- The Removal of Barriers to Learning
- Developing Skills for Learning
- Developing Personal Attributes
- Enriching Student Experiences and Broadening their Horizons

The Computing and IT Department's core purpose is to deliver an engaging and challenging curriculum through outstanding teaching and learning. Our aim is for students to develop skills and knowledge to prepare them for a future in a world where the use of technology is full

Year 10

In Year 10, the focus is on computer systems where the following topics are covered:

Systems Architecture

We study: the purpose of the CPU, common CPU components, the von Neumann architecture, and how common characteristics of CPUs affect their performance such as clock speed, cache size and number of cores.

Memory and Storage

We study: primary storage, the purpose of RAM and ROM, secondary storage, common storage technologies and suitable storage devices for a given purpose, virtual memory, units of data storage, data capacity requirements, conversion between Binary, Denary and Hexadecimal, representation of characters, images, and sounds in binary.

Computer Networks, Connections and Protocols

We explore: factors that affect the performance of networks, the roles of computers in a client-server and a peer-to-peer network, network hardware, DNS (Domain Name Server), the cloud, network topologies, protocols and layers.