

# Year 11 Computer Science Preview Sheet

**Exam Board: AQA**

**Syllabus: 8520**

## Fundamentals of Algorithms

- Computational thinking
- Searching and sorting

## Fundamentals of data representation

- Storage units
- Binary arithmetic and hexadecimal
- ASCII and Unicode
- Images
- Sound
- Compression

## Computer systems

- What is a computer system
- Embedded systems
- CPU
- Memory
- Storage
- Software
- Translators
- Logic diagrams and truth tables

## Fundamentals of networks

- The Internet
- Local area networks
- Wireless
- Client-server and peer-to-peer
- Protocols and layers

## Fundamentals of cyber security and ethics

- Network threats
- Identifying and preventing vulnerabilities
- Ethical and environmental impact
- Legislation
- Privacy



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