



# COMPUTING

## Exam Details

### **Wednesday 13<sup>th</sup> May pm**

#### **Paper 1: Computational thinking and problem solving.**

- 90 marks
- 2 hours
- 50% overall qualification

### **Tuesday 19<sup>th</sup> May pm**

#### **Paper 2: Computing concepts.**

- 90 marks
- 1 hour 45 minutes
- 50% overall qualification

Each exam is out of 90 marks, a mixture of multiple choice, short-mark questions, and long-mark questions (up to 12 marks).

## Revision at Home

**Revision at Home** - An array of resources has been put together to support your revision when you are not in school. All the PowerPoints, worksheets, and support sheets that your teacher has used in your lessons right from your very first lesson in Year 10 is available for you to access on the [Computing Teams Class Materials](#) where a folder for each unit with content covering each topic can be found.

Don't forget to make sure that you use your GCSE Essential Knowledge Booklets to revise Key Terms! Other useful revision sources that are recommended for the AQA Specification include:

### **Websites:**

- [www.educake.co.uk](http://www.educake.co.uk)
- [www.101computing.net](http://www.101computing.net)
- [www.senecalearning.com](http://www.senecalearning.com) (it also has an app)
- [www.computerscience.gcse.guru/](http://www.computerscience.gcse.guru/)
- [www.bbc.co.uk/bitesize/examspecs/zkwsjhv](http://www.bbc.co.uk/bitesize/examspecs/zkwsjhv)
- [studyrrocket.co.uk/revision/gcse-computer-science-aqa](http://studyrrocket.co.uk/revision/gcse-computer-science-aqa)

### **YouTube Channels:**

- [Mr Brown GCSE Computer Science](#)
- [Craig'n'Dave](#)
- [Computing:Mr H Programming Paper 1 guidance](#)

### **Books:**

- [ClearRevise AQA GCSE Computer Science 8525 - Clear Revise by PG Online](#)
- [Hodder AQA GCSE Computer Science, Second Edition](#)
- [PG Online AQA Computer Science 8525](#)
- [CGP GCSE Computer Science AQA Exam Practice Workbook: fully updated for the new exams in 2022](#)

[CGP GCSE Computer Science AQA Revision Guide: fully updated for the new exams in 2022](#)



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## Key Information

Below is a breakdown of the units and each topic that you must revise. Remember the pre-release material published in February ruled nothing out for Computer Science so make sure that you revise all areas thoroughly.

### Unit 1: Ethical impacts of computing

- Ethical, cultural and legal issues

### Unit 2: Fundamentals of cybersecurity

- Cyber security threats
- Social engineering
- Malicious code
- Detection and prevention

### Unit 3: Computer Architecture

- Boolean Logic (expressions, gates and truth tables)
- Application, utility and system software
- Systems architecture
- The CPU and the Fetch Decode Execute cycle
- Classification of programming Languages and Translators
- Memory
- Storage

### Unit 4: Data representation

- Storage units and binary numbers
- Binary arithmetic, shifts and Hexadecimal
- Ascii and Unicode
- Images
- Sound
- Compression

### Unit 5: Networks

- Wired and wireless networks
- Network topologies
- Network security
- Protocols and Layers

### Unit 6: Databases

- Databases and relational Databases
- Structured Query Language (SQL)

### Unit 1a and b: Programming Practical skills in Python

- String Handling, Casting, Selection, Iteration, Turtle, Routines/Procedures, Functions, Arrays, Dictionaries, Sorting Algorithms, Searching Algorithms, Writing to .txt files

### Unit 2a: Computational thinking

Algorithms, decomposition and abstraction, Determining the purpose of Algorithms, Validation and Verification, Errors and testing