

GCSE Students – OCR Computer Science

The OCR GCSE Computer Science qualification is structured into two main components: the theoretical knowledge assessed through written exams, and the practical applications evaluated through a programming project. Here's a breakdown of the content in terms of units and assessment papers:

Units Overview:

1. Computer Systems

- 1.1 – Systems Architecture
- 1.2 – Memory and Storage
- 1.3 – Computer Networks, connections and protocols.
- 1.4 – Network Security.
- 1.5 System Software.
- 1.6 – Ethical, legal, cultural and environmental impacts of digital technology.

2. Computational Thinking, Algorithms, and Programming

- 2.1 Computational Thinking
- 2.2 Programming Fundamentals
- 2.3 Producing Robust Programs
- 2.4 Boolean Logic
- 2.5 Programming languages and Integrated Development Environments.

Assessment Structure:

1. Paper 1: Computer Systems

- **Format:** Written exam
- **Duration:** 1 hour and 30 minutes
- **Weighting:** 50% of the total GCSE

2. Paper 2: Computational Thinking, Algorithms and Programming

- **Format:** Written exam
- **Duration:** 1 hour and 30 minutes
- **Weighting:** 50% of the total GCSE

3. **Programming Project – Done as part of lessons.**

- **Format:** Practical project (non-exam assessment) – Done as part of their two year journey in Computer Science.
- **Duration:** Varies (usually around 20 hours)

Revising for the OCR GCSE Computer Science exam requires a structured approach to reinforce your understanding of the concepts and practice essential skills. Here are some effective strategies to help you prepare:

1. Create a Revision Schedule

- Develop a study timetable that allocates time for each topic, allowing for regular breaks.
- Prioritize areas where you feel less confident but ensure you also revisit stronger subjects.

2. Utilize Revision Guides and Resources

- Use OCR-approved textbooks and revision guides specifically designed for the GCSE course. – Students have been provided a copy in Y10 for the OCR Revision book, exam questions, cornel notebook and a python programming book.
- Online resources, such as educational websites, YouTube channels, and forums, can offer explanations and tutorials.

3. Make Summary Notes

- Create concise notes, diagrams, and mind maps for each topic to condense your learning.
- Highlight key definitions, concepts, and examples to aid recall during revision.

4. Practice Past Papers

- Obtain past exam papers from OCR and practice under timed conditions.
- Review the mark schemes to understand how answers are graded and common pitfalls to avoid.

5. Focus on Programming Skills

- Practice programming using relevant programming languages (such as Python) and coding environments.
- Work on small projects or exercises to strengthen your coding abilities and understanding of algorithms.

6. Use Online Quizzes and Flashcards

- Engage in interactive learning tools like Quizlet or Kahoot for quick reviews of key concepts.
- Create your own flashcards to test your memory on important terms and definitions.

7. Review and Reflect

- After practicing questions or completing a topic, take time to review what you learned.
- Identify areas that still need attention and adjust your study plan accordingly.

8. Stay Healthy and Manage Stress

- Maintain a balanced diet, get regular exercise, and ensure you're getting enough sleep, particularly as exams approach.
- Practice relaxation techniques such as deep breathing or mindfulness to help manage exam stress.

Final Tips

- Don't hesitate to reach out to your teachers for clarification on topics you find challenging. Approach your revision with a positive mindset, focusing on progress and growth rather than perfection.
- Make the most of any available revision sessions or workshops provided by your school. – Fridays after school in ICT2. – 3.10pm – 3.55pm.

By employing these strategies and staying organized, you can enhance your understanding and performance in OCR GCSE Computer Science. Good luck!

Please work hard in your lessons, make the most of revision sessions in school, be willing to work hard, practice your programming skills for your GCSE Computer Science and you will do well. My name is Josh Simpson Head of Computing at Kibworth Mead Academy. Any questions, please drop me an email student or parent at jsimpson@kibworth-tmet.uk

Josh Simpson

Head of Computing

Kibworth Mead Academy