# GCSE Computer Science Personal Learning Checklist

| | |
|---|---|
| **Exam Board** | OCR |
| **Subject** | GCSE Computer Science (J277) |
| **Paper(s)** | Paper 1: Computer Systems<br>Paper 2: Computational Thinking, Algorithms and Programming |
| **Marks Available** | 80 marks per paper (160 in total) |
| **Length of Paper(s)** | 90 minutes per paper |
| **Topic(s)** | See below for a breakdown of topics |

| | |
|---|---|
| **Command Words** | Refer to the OCR GCSE Computer Science Specification |
| **Revision Videos** | https://student.craigndave.org/J277 |
| **Past Papers and Mark Schemes** | Refer to the OCR J277 Website (Assessment Page) |

# GCSE Computer Science
# Paper 1

| 1.1 Systems Architecture | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 1.1.1 Architecture of the CPU | 2 and 3 | | | |
| 1.1.2 System Performance | 4 | | | |
| 1.1.3 Embedded Systems | 4 | | | |

| 1.2 Memory and Storage | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 1.2.1 Primary Storage (Memory) | 6 and 7 | | | |
| 1.2.2 Secondary Storage | 8 | | | |
| 1.2.3 Units | 11 | | | |
| 1.2.4 Data Storage | 12 to 20 | | | |
| 1.2.5 Compression | 21 | | | |

| 1.3 Computer networks, connections and protocols | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 1.3.1 Networks and topologies | 23 to 28 | | | |
| 1.3.2 Wired and wireless networks, protocols and layers | 29 to 32 | | | |

| 1.4 Network security | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 1.4.1 Threats to computer systems and networks | 34 | | | |
| 1.4.2 Identifying and preventing vulnerabilities | 35 | | | |

| 1.5 Systems Software | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 1.5.1 Operating Systems | 37 | | | |
| 1.5.2 Utility Software | 38 | | | |

| 1.6 Ethical, legal, cultural and environmental impacts | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 1.6.1(a) Impacts of digital technology on wider society | 40 to 42 | | | |
| 1.6.1(b) Legislation | 43 | | | |
| 1.6.1(c) Software Licences | 44 | | | |

# GCSE Computer Science
# Paper 2

| 2.1 Algorithms | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 2.1.1 Computational Thinking | 47 | | | |
| 2.1.2 Designing, creating and refining algorithms | 48 to 52 | | | |
| 2.1.3 Searching and Sorting algorithms | 54 to 58 | | | |

| 2.2 Programming Fundamentals | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 2.2.1 Programming Fundamentals | 61 to 64 | | | |
| 2.2.2 Data Types | 66 | | | |
| 2.2.3 Additional Programming Techniques | 68 to 74 | | | |

| 2.3 Producing Robust Programs | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 2.3.1 Defensive Design | 78 | | | |
| 2.3.2 Testing | 80 | | | |

| 2.4 Boolean Logic | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 2.4.1 Boolean Logic | 82 | | | |

| 2.5 Programming Languages, and Integrated Development Environments (IDEs) | | | | |
|---|---|---|---|---|
| **Topics** | **ClearRevise page** | **R** | **A** | **G** |
| 2.5.1 Languages | 84 | | | |
| 2.5.2 Integrated Development Environments | 85 | | | |