

GCSE Computer Science J277/02 – Mock 2 Revision List

2.1 Algorithms		Do you know it?	Revision links
Principles of computational thinking: <ul style="list-style-type: none"> ✓ Abstraction ✓ Decomposition ✓ Algorithmic thinking 			https://youtu.be/wLJ1n47sGRI?feature=shared https://youtu.be/zcLIXCzb4IQ?feature=shared https://youtu.be/5EsSYVP_eMU?feature=shared
Structure diagrams			https://youtu.be/F6f6W7S9Y6k?feature=shared
Standard searching algorithms: <ul style="list-style-type: none"> ✓ Binary search 			https://youtu.be/pKW-hwvD2-A?feature=shared
Standard sorting algorithms: <ul style="list-style-type: none"> ✓ Bubble sort ✓ Insertion sort 			https://youtu.be/aOZBMnTswL8?feature=shared https://youtu.be/jmdP4Y-x0Hc?feature=shared
2.2 Programming Fundamentals		Do you know it?	
The common arithmetic operators: Comparison operators: <ul style="list-style-type: none"> ✓ == equal to ✓ != Not equal to ✓ < Less than ✓ <= Less than or equal to ✓ > Greater than ✓ >= Greater than or equal to 	Arithmetic operators: <ul style="list-style-type: none"> ✓ + Addition ✓ - Subtraction ✓ * Multiplication ✓ / Division ✓ MOD Modulus ✓ DIV Quotient# ✓ ^ Exponentiation (to the power) 		https://youtu.be/qozjsKdyBzM?feature=shared
The use of basic file handling operations: <ul style="list-style-type: none"> ✓ Open ✓ Read ✓ Write ✓ Close 			https://youtu.be/DFxeKaRuFcU?feature=shared
The use of records to store data			https://youtu.be/es-zBs43VAs?feature=shared
2.3 Producing Robust Programs		Do you know it?	
The purpose of testing			https://youtu.be/lqOXjw76d0g?feature=shared
Types of testing: <ul style="list-style-type: none"> ✓ Iterative ✓ Final/terminal 			https://youtu.be/lqOXjw76d0g?feature=shared
Selecting and using suitable test data: <ul style="list-style-type: none"> ✓ Normal ✓ Boundary ✓ Invalid ✓ Erroneous 			https://youtu.be/FbnEBkN_Nko?feature=shared
2.5 Programming languages and Integrated Development Environments		Do you know it?	

Common tools and facilities available in an integrated development environment (IDE): <ul style="list-style-type: none">✓ Editors✓ Error diagnostics✓ Run-time environment✓ Translators.		https://youtu.be/QPMrXhx784Y?feature=shared
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