

CS8 Computational thinking and algorithms



Personal learning checklist | 1 of 1

OCR GCSE Computer Science J277 | Paper 2 · Specification 2.1

Name _____ Class _____ Date _____

Tick one box for each statement. Red: need help. Amber: partly confident.
Green: can do independently.

Support your confidence with explanations, workings, diagrams and tested code. Quick checks do not assess a complete program or evaluation.

I can	Red	Amber	Green
Computational thinking			
Apply decomposition, abstraction and algorithmic thinking to a problem.	☐	☐	☐
Designing and tracing			
Identify inputs, processes, outputs and constraints for a task.	☐	☐	☐
Construct a structure diagram and distinguish it from a flowchart.	☐	☐	☐
Create and interpret pseudocode and labelled flowcharts.	☐	☐	☐
Complete trace tables with assignments, conditions and outputs.	☐	☐	☐
Identify, correct and refine algorithm errors and edge cases.	☐	☐	☐
Searching			
Trace linear search on ordered or unordered data, including failure.	☐	☐	☐
Trace binary search on sorted data and explain interval updates.	☐	☐	☐
Compare searches using initial ordering and the expected workload.	☐	☐	☐
Sorting			
Trace adjacent comparisons and complete passes of bubble sort.	☐	☐	☐
Trace insertion into a sorted prefix.	☐	☐	☐
Trace splitting and merging in merge sort.	☐	☐	☐
Compare sorting methods and design a complete tested algorithm.	☐	☐	☐

My next revision priority _____