

Computer Science Grade Descriptors

GCSE Grade	How do I achieve that level?
9	<ul style="list-style-type: none"> • There is a detailed analysis of what is required for solving the problems. • There is clear and logical decomposition of larger tasks into component parts. • There is a clear requirements specification which covers all the functionality of the task. • Approaches are justified. • There is detailed discussion of testing and success criteria. • The importance of validation in order to produce a robust program is taken into account. • In the solution to the task, objectives are clear and show awareness of the need for real-world utility and robustness. • There is an attempt to program solution to solve all of the task using most of the techniques listed. • The task is clearly broken down into its component parts, with reasons given, and there is a clear correspondence of the design with the final code. • The techniques are used appropriately in all cases giving an efficient, working solution to all parts of the problems. • There may be additional programming techniques used to produce an efficient and elegant solution to the task. • The solution is sufficiently challenging and makes good use of a range of techniques.
8	<ul style="list-style-type: none"> • All the component parts of the task are clearly planned. • There is discussion and planning of the user interface. • There is a full set of detailed algorithms representing a solution to each part of the problem. The design is complete enough for it to be used as the basis for coding. • There is detailed discussion of testing and success criteria. • There is awareness of why testing should be destructive. • Variables and data structures are identified. • The solution to the task shows consideration about how to build in robustness. • The solution to the task is clearly designed in a modular way.
7	<ul style="list-style-type: none"> • There is a test plan covering many parts of the problem with some suggested test data. • There is evidence that the system has been tested using this data. • There is some evidence to show how the results of testing have been compared to the original criteria. • There is a brief evaluation of how successful or otherwise the solution is. • Quality of extended response – The report, for the most part, is presented in a structured format with use of some specialist terms. • There is evidence to show how the solutions was developed. • There is some evidence of testing during development. • Testing shows that many parts of the solution work. • The code is organised with sensible variable names and with some annotation indicating the purpose of each part of the code. • There is a record of resources used. • Quality of extended response – The report, for the most part, is presented in a structured format. The information presented is, in the most part, relevant and supported by some evidence.
6	<ul style="list-style-type: none"> • Most component parts of the task are planned. • The user interface is described.

	<ul style="list-style-type: none"> • There is a set of basic algorithms outlining a solution to most parts of the problems. • There is some discussion of how testing will take place. • The link between testing and success criteria is evident. • There is some discussion of the variables to be used. • There is awareness of the need for validation. • The solution to the task shows awareness of real-world utility value, but may be limited in scope.
5	<ul style="list-style-type: none"> • There is some analysis indicating what is required for each of the component parts. • The problems have been decomposed into clearly defined component parts. • There is some discussion of how testing will take place. • The link between testing and success criteria is evident. • In the solution to the task, the objectives are clear. • The solution to the task shows awareness of real-world utility value but may be limited in scope.
4	<ul style="list-style-type: none"> • There is an attempt to program a solution to most component parts of the task using several techniques. • The code is mostly correct. • The task is clearly broken into its component parts and there are links to the design. • A good range of techniques are used appropriately, giving a working solution to most component parts of the task. • Some sections of the solution may be inefficiently coded, although basic functionality is mostly successful. • The task is mostly complete, but it may be limited in its scope.
3	<ul style="list-style-type: none"> • There are basic plans to solve some of the component parts of the task. • There may be a limited outline describing the intended approach to some parts of the task. • Testing is not planned or only briefly mentioned. • The solution may be outlined but not in sufficient detail to produce a workable solution • There is limited evidence to show how the result matches the original criteria. • Quality of extended response – The report may be ambiguous or disorganised, with little or no use of specialist terms.
2	<ul style="list-style-type: none"> • There is limited analysis, with some comments on what the task involves. • There may be little decomposition of the task into its component parts. • There are brief comments on how testing might take place, but with no mention of success criteria. • There is evidence to show that the system has been tested for basic functionality but the test plan is limited in scope with little structure.
1	<ul style="list-style-type: none"> • There is an attempt to program a solution to solve component parts of the task using few of the techniques identified. • Code may be minimal, disorganised or hard to follow. • Component parts of the task may be trivial, incomplete, or not attempted. • There is limited evidence to show a solution to component parts of the task. • There is some evidence to show that the solution works. • Code is presented with little or no annotation. • Variable names may not reflect their purpose. • The code shows little organisation or structure. • There is a limited record of resources used. • Quality of extended response – The report is presented in an unstructured format. Information may be supported by limited evidence and the relationship to the evidence may not be clear.