

## What makes a level 6?

Characteristics of level 6	Exemplification in the STUs
Solutions combine information from a range of sources, taking account of greater complexity and information from the industrial and business world. Pupils discuss the impact of ICT on society.	Illustrated in STUs 8.5, 9.2 and 9.3.
Solutions consider a variety of audiences. Pupils are able to justify their solution in terms of its efficiency for the identified audience, comparing it with known examples.	In STU 8.2 pupils produce linked web pages considering a range of audiences. They create a structure with links to navigate the web pages suitable for different audiences. In order to demonstrate level 6 achievement they would need to be given opportunities to demonstrate how their solution is efficient. They might demonstrate this by setting up hyperlinks that create a suitable structure for the audience.
All their solutions increasingly show a clear understanding of the 'input, process, output' sequence of events. This is an iterative process, where pupils find things out, develop ideas and share information. This process may be repeated more than once in producing the solution. Pupils predict outcomes, develop, try out and refine sequences of instructions, showing precision and efficiency in producing these instructions.	In STUs 8.5 and 9.1 pupils plan instructions which when used will deliver an efficient solution to the problem. In producing a control program to sequence the different stages of the water ride, they use variables to track the boats on the ride and increase the safety factors in refining their solution.
Pupils develop an ICT-based model by changing the rules to solve a given task and comparing these results to other information. At all stages they are able to justify choices against criteria devised using knowledge from a greater range of sources. They are critical of solutions and evaluate effectiveness.	In case study 9.3 pupils establish a theatre ticket system. At the outset they gather information from established systems and develop criteria for a successful solution. Throughout the development they annotate their work using comment boxes and callouts to illustrate refinements made to the work as it progresses. They test their solution against the agreed criteria.
Solutions are developed with increasing integration of elements from different software to develop an efficient solution. This may include using automated features.	In STU 8.5 pupils develop a database. This database of information is then integrated in different parts of the solution, including creating an invoice and using mail merge to personalise the mailing of the leaflet for advertising.