

## What makes a level 7?

Characteristics of level 7	Exemplification in the STUs
<p>Solutions combine a variety of ICT-based sources as well as using other sources, taking account of the needs of different audiences. For example, a single problem may require more than one solution depending on the audiences.</p>	<p>In case study 9.3 publicity materials are planned and created including automated processes suitable for the audiences. Solutions are justified, for example a pupil poster may be appropriate for advertising within the school, but a leaflet or personalised letter is more suitable for communicating with the wider audience outside the school.</p>
<p>Pupils are able to scope and define the parameters and assumptions made within a complex financial model as part of a system. Feedback from users and past records from a similar system are used in order to develop and improve the solution.</p>	<p>In STU 8.5 pupils produce a financial model to check the profitability of producing a variety of plants. In order to demonstrate level 7 achievement they would need to be given opportunities to develop this model in the context of a local garden centre, having opportunities to compare performance with information in similar ventures. In case study 9.3 the financial model would link prices, booking and costs. A range of potential users would try out the solution and give feedback.</p>
<p>In producing their solutions they develop a specification to enable a solution to a complex control problem. They can record physical data remotely and at specified time periods and consider the amount of data required for effective analysis.</p>	<p>In case study 9.1 they use sensors to control the flume ride at various points in the system, taking account of the different elements of the system and the need to use sensors and time delays to ensure that the whole system works safely and effectively.</p>
<p>At all stages they are able to demonstrate and document the stages of the system life cycle that characterise their solution. They show how they analyse, design, implement and test the ICT solution throughout development, taking account of comments from the audience and their own testing procedures. They are able to translate enquiries into the form required by the system.</p>	<p>In case study 9.2 they produce and document a database to meet the needs of the hypothesis developed. The system is documented and annotated to show how it is refined to meet the needs of the audience. In testing, the language used is specific to the database needs.</p>
<p>Throughout, there is evidence of understanding the most suitable information sources and information handling applications. Evaluations show an awareness of how needs will inform future planning. They identify the advantages and limitations of different information handling applications.</p>	<p>Selecting appropriate information and developing information systems are exemplified in case study 9.2 with some elements in case study 9.3 and STU 8.5.</p>