# Cambridge Nationals

# ICT

Level 1/2 Cambridge National Award in ICT **J800**
Level 1/2 Cambridge National Certificate in ICT **J810**
Level 1/2 Cambridge National Diploma in ICT **J820**

# OCR Report to Centres June 2018

**About this Examiner Report to Centres**

This report on the 2018 Summer assessments aims to highlight:

- areas where students were more successful
- main areas where students may need additional support and some reflection
- points of advice for future examinations

It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

The report also includes links and brief information on:

- A reminder of our **post-results services** including **reviews of results**
- Link to **grade boundaries**
- **Further support that you can expect from OCR**, such as our CPD programme

**Reviews of results**

If any of your students' results are not as expected you may wish to consider one of our Reviews of results services. For full information about the options available visit the OCR website. If University places are at stake you may wish to consider priority service 2 reviews of marking which have an earlier deadline to ensure your reviews are processed in time for university applications: http://www.ocr.org.uk/administration/stage-5-post-results-services/enquiries-about-results/service-2-priority-service-2-2a-2b/

**Grade boundaries**

Grade boundaries for this, and all other assessments, can be found on the OCR website .

**Further support from OCR**


Attend one of our popular CPD courses to hear exam feedback directly from a senior assessors or drop in to an online Q&A session.

https://www.cpdhub.ocr.org.uk

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**OCR REPORT TO CENTRES**

# External examination (R001)

1. General Comments:

Candidate performance during this session was poorer than the previous sessions, with few candidates seemingly prepared for those questions that required a technical understanding.

The pre-release tasks are intended to be a support for this qualification and, where completed in fair depth, can provide a very sound foundation from which candidates can build success in this exam. Unfortunately, the answers to questions such as how GPS works, suggest that the vast majority of candidates had not completed the pre-release tasks. Indeed, most candidates claimed that GPS was based on a device sending a signal into space.

Furthermore, candidates need to be practiced in reading exam questions. The follow onto the question about technical understanding of how GPS works asked candidates to describe how data obtained from the GPS device could be used to track the location and speed of riders during a ride. Many candidates mistook this question as a repeat of the previous one and repeated their answer in a different way. Some candidates chose to describe how devices are attached to the front of individual bikes, whilst others simply copied out sections from the pre-release.

As a final point, some candidates are failing to take account of command words in their answers. This sometimes means that they are providing more complicated answers than are required (particularly when the question asks candidates to describe rather than explain), although, more frequently, candidates are failing to explain when asked to do so. Typically, an explain type answer should include a reason for the suggested answer. If candidates could be encouraged to use the word “because” or “therefore” as part of any extension to the initial point made, this may prove beneficial.

2. Comments on Individual Questions:

**Section A**

Q1a – mostly answered well. A few candidates suggested generic input device, but most realised that an input device to do with actually capturing sound or image was required.

Q1b – a wide range of devices was accepted and, consequently, most candidates got the first part of this answer correct. However, a small number stated “mobile phone” or simply “phone”. This answer was considered too vague and so a mark was not given. The second part of the answer was dependant on the first, in that if candidates were not awarded a mark for part (i), none was awarded for (ii). However, where candidates had stated “phone” or “mobile phone” for b(i), a concession was given and the answer to this question was considered.

Virtually all candidates completed question 1b(ii) and there were some good answers. However, some missed the context of the question and either did not identify a feature of the device they were discussing, or gave a feature that had little to do with the specific focus of watching a video recording. For example, “it is small” was a relatively frequent answer. Whilst this is a feature of a Smart Phone, this has no positive impact on the ability to watch a video.

Questions 2a and b have been discussed within the general comments section above. Very few candidates were able to give even a passing description of how GPS technology identifies the location of individual riders or describe how data can be used to identify location or speed. Where candidates did understand the focus of this second question, a good number were able to explain the relationship between distance, time and speed.

Question 2c. This question was answered very well by most candidates. The most frequently seen answer was to do with portability. However, as mentioned above, some candidates failed to work with the command word and simply stated two facts about laptops and desktops. In such cases, only 1 mark was awarded.

Question 2d was a further explanation of how well candidates understood the scenario. As with the previous question, the majority of candidates understood the question and gave good answers. In such a question, the candidate is required to consider unique features of the device that explain the added expense. Most candidates realised this and gave answers that effectively compared the use of a microphone and a pen and paper. However, answers such as “to take notes” are not providing a reason why an organisation would go to the bother of buying extra equipment and so were not awarded marks.

Question 3 as a whole concentrated on data protection. For question 3a, candidates were asked to describe a method by which data on a laptop could be protected from unauthorised access. As this was a “describe” question, candidates simply needed to describe a process such as the use of upper case and lower case letters to create an effective password, or simply state that a password works because a limited number of people have access to it and without it, any attacker has a reduced ability to access data. Despite this, many candidates explained their answer. Of itself, this did not mean they were not given full marks, but this does represent something of a waste of effort and, possibly, time.

Question 3b, where candidates realised that this question was about the physical protection of devices, good answers were given. However, a few candidates missed the context and attempted to repeat versions of their previous answer.

Questions 3c and 3d asked candidates to consider the implication of the theft of a laptop on the Gym and then on customers. Virtually all candidates chose to focus on the loss of data, although a small group focussed on the financial implication of buying a new laptop or the inability of one of the trainers to do their job properly (both of which were good answers).

Candidates generally gave good answers to q3c and fairly good answers to q3d. Some candidates did not realise the impact of the change of focus and tried to give further impacts of the theft on the gym, or mistook “members” to be staff at the gym.

The failure by candidates to recognise the change of focus between q3c and q3d is not limited to this iteration of the paper. The syllabus has areas where impacts are considered from two angles and candidates need to be prepared to consider both sides of an impact.

Question 4a was fairly well answered, although marks were not awarded where candidates stated that a standalone machine was not connected to “any other devices”, as this was considered too vague.

Question 4b was a further example of a technical question that suffered from an apparent weakness in preparation. As part of their preparation, candidates were asked to consider ways

in which networks could be created. Despite this, very few candidates were able to give anything resembling a reasonable answer to this question.

**Section B**

This section was based on Scenario 2.

Question 5a asked candidates to explain how budget and user needs impacted on Mandy's decision about which computer system should be bought. Again, this question was based on a preparatory task.

Many candidates chose to answer this by highlighting what Mandy needed to do, usually accompanied by a simple comment that she cannot exceed her budget as that is all the money she has. In doing so, they had shown some awareness of user needs, but had not dealt with it directly as a concept, and so this was dealt with as the basis of a lower Mark Band Two answer.

Question 5b asked candidates to suggest items of peripheral hardware that would be required for her job role. Many candidates seemed very ill-prepared for this question, with answers ranging from "desk and chairs" through to "computer" or "monitor". Other candidates suggested items that were clearly beyond the scope of Mandy's job role. Candidates are reminded that the scenario is the base from which questions are built and, whilst some leniency may be applied where suggestions could fit a scenario, Mandy would not be listening to individual recordings made by Personal Trainers; neither would she be creating a network.

Question 6 focussed further on Mandy. For question 6a, the vast majority of candidates correctly identified word processing software as the best method. However, as the question specifically asked for a type of software, any candidate who gave a type of document was not awarded.

Question 6b asked why Mandy had chosen a particular folder name. Where candidates simply stated, "it makes it easier to find", this was treated as too vague, but where the candidate explained why it would be easier to find, this mark could be awarded. Many candidates gave good answers to this question.

Question 6ci and 6cii focussed on getting a file to the manager who is currently on holiday. The most frequent answer for 6ci was email, and many candidates were able to give clear answers to justify this choice. However, some candidates remain convinced that email is both instantaneous and free. These answers were not awarded.

Questions 6d and 6e both focussed on the use of track changes. Some candidates confused this with a method to track the location of files, whilst others thought it was linked to changing music tracks in the gym. Of those who knew what the term "track changes" meant, many were able to say how it was used to create a collaborative document, but very few could explain why Mandy chose to use it.

Finally, question 7 focussed on the use of calendar software. Question 7a the focus was on the use of two tools. Generally, this question was poorly answered, with few candidates being able to describe the use of either tool in any real depth. Furthermore, candidates cannot be awarded for a repeat of the question, therefore any reference to "inviting" as part of the second answer had to be ignored.

Question 7b asked for a feature of Diary Management Software that could be used to reduce the chance of the owner of the gym missing an appointment. Where candidates appreciated that this was about diary management software, this was a very accessible question. However, other candidates missed this focus and suggested that Mandy should phone her boss every day, or physically find him and tell him.

Where necessary, please continue the Report on separate sheets of paper.

# Moderated units (R002 – R011)

1. Overview:

*In relation to the qualifications / suite as a whole*

As in previous sessions, some excellent work was seen in all units, with the highest-achieving candidates demonstrating a wide range of software skills and an ability to apply these appropriately to the vocationally relevant scenarios provided in the OCR-set assignments. Some candidates, often over-generously marked by centres, failed to meet criteria at the highest level because of a lack of focus on the assignment scenario/requirements, whilst others evidenced only a limited range of the software skills listed in the specification.

Common errors within centre marking included:

- adopting a checklist approach, crediting skills when evidenced once, rather than assessing the extent to which these were used appropriately to meet user requirements, which is generally what is required by the assessment criteria at the highest level;
- focusing on use of tools and not assessing qualitative criteria at the higher levels
- adding to task requirements, e.g. assessing documentation of how outcomes were achieved, where this was not required by either the set task or the assessment criteria – this frequently resulted in over-generous assessment at the higher levels with marks chosen over-harshly in the lowest mark band;
- crediting simplistic responses over-generously by not considering the range of skills listed in the specification;
- misinterpreting assessment criteria by failing to look at the content of the relevant learning outcome, frequently resulting in assessing exactly the same achievement in more than one section of the marking criteria;
- giving credit for achievement for which there was no evidence within the portfolio submitted for moderation.

Where centre marking was accurate this was because centre staff focussed their attention on the assessment criteria and appropriately interpreted these in the context of the requirements both of the assignment and the subject content of the unit and where centre assessors understood the need for clear evidence to support all assessment decisions.

It was disappointing to see a lack of originality within work from some centres. In some cases, this was a result of over-direction by teachers, which led to a number of investigations into centre practice, ensuring that JCQ requirements were fully met. In other cases, this was a result of a limited range of skills being taught, with candidates simply repeating ideas from practice tasks rather than being encouraged to think more widely about the requirements of the task. One example of this latter issue was work from some centres in R005 where all candidates chose to use the same software and then incorporated a quiz into their solutions, despite the fact that this was generally not appropriate for the promotional nature of the client brief given in the assignment. It is confirmed here that the JCQ Instructions for the Conduct of Coursework must be followed when candidates are following the assessment tasks and that additional instructions, whether in the form of worksheets, verbal instructions or class activities, are not permissible. Revised versions of the OCR-set assignments, which make these requirements very clear, were published in the summer of 2017 and should be used with all candidates.

Overall centre administration caused fewer problems for moderators than in previous sessions, with fewer clerical errors in marks submitted and paper portfolios presented appropriately, i.e.

tagged. However, there were still some centres, who sent paper portfolios as loose sheets and annotation on Unit Recording Sheets (URS) was often not helpful in identifying reasons for marking decisions or the location of evidence. The latter was a particular problem with electronic submissions, with only a minority of centres providing clear guidance to moderators to direct them to the files/pages needed for evidence for each assessment criterion.

It should be noted that this was the last session for which the Certificate will attract performance points for school league tables but the Award and Certificate (J800 and J810) qualifications continue to be available, with the next review on 30 September 2022. The Diploma (J820) will not be available after this session.

## 2. General Comments

*Specific to each level within a qualification*

Centres submitted work in a variety of ways – purely paper portfolios, electronic files and a mixture of the two. All are equally acceptable in terms of requirements but those choosing not to submit any electronic evidence had to rely on candidates producing sufficient screenshots to show what they had done. This not only created additional work for candidates but screenshots could often not portray qualities such as appropriateness of multimedia. Where candidates did not provide evidence of all features they had utilised they could not be given credit for them.

Of those submitting entirely electronic evidence, candidates from a few centres presented documentation appropriately in a single document, with supplementary files evidencing products created. Where appropriate software was used for documentation this demonstrated good transfer of skills from R001 and R002, was appropriate within the vocational setting of the qualification and aided moderation by creating a coherent document. Regrettably, most electronic portfolios consisted of a range of different documents, with some candidates creating a new document for every task or sub-task, and where filing systems were weak it was often extremely difficult for moderators to locate evidence for each assessment criterion. Some centre staff annotated the Unit Recording Sheets (URS) with filenames/locations, as required, which considerably aided moderation.

It was pleasing to note that a greater proportion of candidates documented their work using an appropriate text processor, usually a word processing package, with fewer inappropriately using slide-show software as a means of documentation, which cannot be considered appropriate in a vocational setting.

Some centres appeared to consider the use of electronic evidence of paramount importance and scanned hand-drawn documents such as design plans or required candidates to create these documents using software, with some candidates unnecessarily copying hand-drawn designs onto, for example, PowerPoint slides. Scanned documents were rarely as clearly readable as the original paper would have been and this caused moderators unnecessary problems – if the postal option is chosen then evidence can be sent in the most appropriate format.

The moderator could not open some electronic files presented for assessment because they were not one of the acceptable file formats listed in Appendix C of the specification document and were not generic file types that could be opened without use of commercial software. Notable examples include MS Publisher, Serif applications and Photoshop. Where these files were included simply as evidence of filing this was not a problem but if the contents need to be read by the moderator then the files must be exported into an appropriate generic file type such as pdf, jpg, html etc. Even where moderators had the required software they did not always

have the fonts used by candidates and so were unable to view work as the candidates had created them.

Where centres chose component 01 – the OCR Repository – work was much more easily accessed by the moderator, with less effort from the centre, where each candidate's work was uploaded into a single folder, with the Unit Recording Sheet inside. Where individual files were uploaded, moderator's access was much more difficult as each file had to be processed separately.

Where evidence was paper-based, some difficulties were encountered where screenshot evidence could not be read clearly. This was sometimes due to the size and/or resolution of the screenshots and sometimes due to poor colour contrast. If evidence cannot be read then it cannot be credited.

Centres are reminded that where witness statements are needed to supplement candidate evidence, these must comply with Appendix A of the specification. In particular, this specifies that witness statements must describe what has been witnessed and should not attempt to assess the work.

Most centre assessors added comments to the 'Teacher Comments' column of the Unit Recording Sheets (URS), which was an improvement upon earlier sessions, as was the proportion of centres where these comments were helpful and included page numbers/file names. However, in many cases these comments simply repeated or reworded assessment criteria rather than explaining why it was felt that these had been achieved. Where comments referred clearly to specific evidence within the portfolios, assessment was more likely to be accurate as assessors were focussing on the evidence within the portfolio, as required. In some cases, it was clear that assessors had assessed against evidence that was not sent to the moderator; e.g. commenting on filing structures where none were evidenced.

Regardless of the format of evidence submitted (paper or electronic), it is a requirement that candidates hand in a portfolio of work that should then be assessed internally and stored securely. It should then be a simple administrative task to extract the required moderation sample on request and the moderator will be sent exactly the same evidence as that used for internal assessment. If the moderator does not see, exactly the same evidence as centre assessors it is unlikely that there will be an agreement on marks. In some cases, it appeared that centre staff were printing out work specifically for sending to the moderator – this is not appropriate – not only does it delay sending the requested sample but also it does not provide the moderator with the same evidence, in the same format as that used internally.

The glossary in Appendix D of the specification provides guidance on the interpretation of words such as 'some', 'most' and 'thorough', which are frequently used as differentiators in the assessment criteria. It can be further clarified that whilst 'explain' expects clear reasons for a decision, 'justify' is a higher requirement, for which some comparison of alternatives, with reasons for the final choice, is needed. Some centre assessment was over-generous, assessing very brief and basic reasons as 'thorough'. In such cases, it may have been helpful for assessors to consider what a lower-level response might be, to meet the mark bands below. It is important when choosing the mark band of best fit to consider the statements within *all* bands, not just the highest.

In some cases moderation determined that the original centre's order of merit was not valid, in which case, work had to be returned to the centre for remarking. Sometimes this was due to different standards being applied by different assessors, which should have been identified by internal standardisation procedures. Occasionally it was due to a lack of focus on assessment criteria, for example, when candidates' explanations of what they had done were assessed even where there was no provision for this within the assessment criteria.

3. Comments on Individual Units
*Comments specific to individual units and LOS / ACS within those units*

**R002**

Centres presented evidence from both OCR assignments – MStreamIT and Tailored Tops – although in common with other units, only a minority appeared to have used the updated version of the assignments.

LO1 focuses on organisation in the context of searching for, storing and communicating information, with assessment of three areas – filing, email and internet searching. Assessment in all areas was often over-generous.

Candidates are provided with a scenario, which provides them with a role within a company. They are then asked to set up and use a filing system that will allow other company staff to easily find their files, also to protect their files from accidental loss. At the highest level, a *well-structured, logical system* will use meaningful file/folder names, which would be appropriate *in a business context*, allowing a user to recognise the contents easily, both now and in the future, and it will meet all requirements of the task, which includes file versions and backup. Most candidates used folder/file structures organised and labelled according to assignment tasks, which they used to find their work in the context of the assignment but it did not meet the requirements at the highest level and fitted best within Mark Band 2. In many cases, no evidence of file names or locations was provided, so credit could not be given here.

The email tasks differ according to the assignment and candidates from many centres using the 'Tailored Tops' assignment provided guides for use, possibly repeating previous practice work, rather than addressing the requirements of the task. Although specific reference to email etiquette has now been removed from both assignment and assessment criteria, this does not take away the need for candidates working at the highest level to show a thorough understanding of the skills listed in the specification. This include the use of email to communicate with others *in business contexts* and make specific reference to subject line and appropriateness of body text, so candidates demonstrating a *thorough* understanding, as required in the highest mark band, will provide examples and explanations that show how and when tools should be used in business context, not just which icons to choose. In some cases,

candidates provided evidence of their own use of email rather than responding to the requirements of the task.

Although the revised assignments make requirements for evidence clearer, there were still many candidates who provided no evidence of the search criteria used to find items, particularly in Task 2 for MStreamIT but also for Task 5 of Tailored Tops. Although credit at the lowest level can be given, if candidates show that they have found some relevant information they cannot be given credit for the quality of search criteria if these are not shown. Some centres, on seeing the use of a search engine's Advanced Search page assumed this would meet Mark Band 3 requirements but where this was not used appropriately (as was frequently the case) this was not an accurate assessment.

The assignment tasks and assessment criteria ask candidates to provide details of the copyright holders so that permission to use the images found can be applied for. Most candidates simply completed source tables with URLs, which did not provide any of the required details. In some cases, these URLs were from search engines or third-party pages, which had no relevance. Candidates from some centres had been taught to search for images that could be used without copyright but these searches often produced images that did not belong to the source website, so this was again inaccurate.

LO2 assesses the data handling work carried out in response to Tasks 3 and 4 (MStreamIT) or 4 and 6 (Tailored Tops). These are deliberately written so that, although most, if not all, sub-tasks *can* be carried out using spreadsheet software. A more appropriate approach would be to use a database package for one of the tasks, as spreadsheet software does not easily allow the user to choose output fields and format output in reports/label format. The most important differentiator within this learning outcome is the extent to which the requirements stated in the tasks have been met. Many centres marked this section over-generously because errors/omissions in candidate work were not taken into account.

LO3 focuses on the use of software to communicate information for a business purpose that should be assessed in the context of the specification content as well as the assignment requirements. This lists software to be taught as word processing, DTP, presentation, web authoring and graphics, although where candidates choose to present information appropriately using other software, e.g. video editing, this can be credited. The first section assesses the range of file types produced, which roughly corresponds to the range of software used, and the use of tools such as entering/importing text, tables and graphics, integrating contents from different file types and mail merge, including entering merge field and merging selected data. The second section assesses the accuracy and appropriateness of the content of documents, taking into consideration normal business standards and the requirements of the tasks. Many centres inappropriately reconsidered the use of spreadsheet and/or database software, which had already been assessed in LO2, within the first section of LO3 and where candidates had otherwise only used word processing and one other relevant software type, this resulted in an over-generous assessment of the range of file types produced. Where mail merge was evidenced candidates often did not demonstrate that they know how to create the letters required by completing the merge, rather they often showed that they had simply previewed one letter at a time. As formatting is assessed within LO4, this should not be considered within LO3. Some centres marked the first section of this learning outcome over-harshly – where documents are not wholly fit for purpose because of inappropriate content, this is assessed in the second section whilst if the problem is with formatting, this is covered in LO4. However, some centres did not consider the extent to which candidates had completed the various tasks and over-generously chose the highest mark band where a full set of documents was not presented.

LO4 was often the most accurately assessed section in this unit but very few centres presented any evidence of the level of independence of formatting. Clear evidence should be provided for all criteria; in this case, a comment on the Unit Recording Sheet would be sufficient where support was not needed/provided, otherwise a witness statement should be completed to itemise any support given. Some candidates were over-harshly assessed in the lowest mark band where formatting, although quite limited in range, did enhance readability. Where candidates have not completed all documents this is assessed in LO3 and the mark band for LO4 should be chosen according to the quality and appropriateness of formatting evidenced. Where all documents have not been completed this will not be consistent and the range may be limited, making a lower mark within the chosen band appropriate, but where formatting enhances readability and clarity of message this best fits Mark Band 2. In contrast, some candidates were over-generously assessed in the highest mark band where a more thorough approach, using a wider range of tools as listed in the specification, would have further enhanced the documents produced.

**R003**

Most candidates created a spreadsheet solution that would produce the required invoices, with varying levels of user input. Where candidates attempted Task 3 they generally met the requirements well and marking was most accurate in LO3.

The first section of LO1 assesses the basic structure of the spreadsheet solution, including formatting and features added to aid user-friendliness, with formatting, notes (i.e. text on the sheets) and comments being the main methods identified in the specification, although where macros aid ease of use these can be credited here too. Validation, including input messages, is specifically assessed in the second section of this learning outcome and formulae in LO2, so these are not considered in this section. Few candidates demonstrated any depth of understanding of the needs of a new user, with formatting often restricted to highlighting headings or making each product, for example, a different colour, rather than used to make different areas of the sheet clear. Comments and notes were rarely seen and where comments were used these were often not consistent enough to provide any genuine help and in some cases were simply documenting what candidates had done rather than how the sheet should be used. Macros, where used, generally did no more than duplicate software features that were already easy to use, e.g. printing and moving between sheets. Where spreadsheet tabs are appropriately named, they are a much easier way of navigation than a menu system that relies on always having to go back to a menu page and/or where buttons can be scrolled off the screen. The few candidates that added notes, sometimes appropriately inside text boxes, to provide instructions for the user tended to show the best understanding of what was needed. The extent to which solutions met user requirements generally depended upon whether or not candidates had given any consideration to the need to add new customers and products in the future.

The second section of LO1 assesses data types chosen, e.g. currency, but the most significant differentiator is the extent to which validation, with appropriate input and error messages, has been used to minimise data entry errors and this was often very limited. Limiting to a list was the most common type of validation rule used, with range and text length more rarely seen, and where only one type of validation was applied this did not meet the requirement above the lowest mark band. Centre marking was also often over-generous in the higher mark bands where there were no input messages and often lacked any consideration of appropriateness/completeness. Many candidates applied validation to only one sheet despite the fact that all would need user input. In some cases candidates applied validation rules that

would not accept valid data, such as over-rigid text lengths and numeric/date limits whilst others added rules that would have been appropriate had the 'warning' setting been used rather than 'stop', as they would highlight unusual, though not necessarily erroneous entries in, for example, the 'quantity' column of the invoice. It should be noted that the electronic file for the spreadsheet, whilst containing clear evidence of validation rules applied, does not show an assessor/moderator *where* these rules have been set and it is essential that centres ensure there is clear documentation to direct a moderator to the location of all rules set.

The first section of LO2 assesses the appropriateness and effectiveness of formulae used whilst the second assesses candidate's understanding *as evidenced by their explanations* of why these formulae/functions have been chosen. There is no overlap between these two sections and centres sometimes credited the use of functions in both sections. If candidates have not documented their formulae then no marks can be justified in the second section. Some centres credited explanations of other features in this section; centres are reminded that this learning outcome refers to the use of formulae and macros only.

The higher levels in the first section of LO2 require some efficiency within formulae. This may be evidenced by the creation of macros that perform a useful function that does not simply duplicate a software feature and/or functions such as LOOKUP and IF, which reduce the amount of user input needed. Many candidates were able to meet at least some of these requirements by the use of LOOKUP on the invoice. Where this was not used effectively for both customers and products and/or where there was no error trapping to ensure the invoice sheet would work regardless of whether or not all lines were completed, it could not be considered that the requirements of Mark Band 2 were fully met. To meet the requirements of the highest mark band, it would be expected that candidates' solutions would be moving towards one, which required no more than the minimum user input and which would allow changes in company policy for discounts and delivery. Also changes in VAT percentages, without the user having to access and alter any formulae – this necessitates the use of cell references rather than absolute values for any variable that might need to be changed in the future. A significant number of candidates did produce systems that met the requirements at this level although centre marking was sometimes over-generous where errors had not been noticed/considered. Although testing is not specifically assessed within this unit and therefore does not have to be specifically evidenced, it is part of the taught content and a sample invoice was provided with the assignment, which candidates could have used as part of their testing to ensure their systems produced the right results.

Although this did not affect the marks earned, candidates who chose to use product/customer names rather than codes as principal identifiers demonstrated some lack of understanding of the purpose of unique product/customer codes.

Most candidates addressed the task of explaining formulae either by simply identifying formulae used or by describing what they did or how they worked. Few gave any reasons for their use. Where candidates had used formulae that introduced efficiency, they should have been able to explain why they had done so, in terms of the efficiency gained and/or the effect on the user. At the highest level, candidates needed to demonstrate that they had considered alternatives; this is a realistic expectation only where they had produced very efficient systems but even for those candidates who did it was rarely seen. For example, a candidate using a cell reference in a formula rather than simply using the absolute data provided in the scenario should be able to explain why this is an advantage. Candidates working at this level might be able to explain why a LOOKUP had been used when a nested IF could have produced the same results, or vice-versa.

The first part of LO3 assesses Task 3 parts A and B, which require filtering, sorting and the production of a chart. Marks were sometimes over-generous where candidates had not provided clear evidence of a solution to one or more of the problems and had only described how it might be achieved. However, many candidates were very successful in these two tasks, with the appropriateness of the type of chart and its labelling often the weakest area. The specification content refers to the way that data type influences the graph type that is appropriate. Generally, a pie chart illustrates proportions whilst a bar/column chart shows absolute values and a line illustrates trends/changes where intermediate points would have a meaning.

The second part of LO3 assesses the modelling scenarios in Task 3 part C, some of which are best carried out using trial-and-error whilst some are more effectively solved using the Goal Seek tool. Some centres also taught the use of the Scenario Manager, which was useful in presenting alternative solutions to some of the scenarios. The use of advanced tools, i.e. software modelling tools rather than simple trial-and-error, was lower than in previous sessions. Similarly to previous sessions, candidates generally attempted to describe the results they obtained but did not attempt to explain why they used the methods they did. Some identified the use of Goal Seek when they had used it but did not consider why it was appropriate for those tasks but not for others. This made some centre assessments over-generous.

**R004**

This unit has been designed to allow candidates to meet Mark Band 1 requirements throughout by the use of the single-table database provided, modified by adding fields and setting properties. This can then be queried, reports created, a form and user interface added and some testing carried out and described.

LO1 assesses the basic database structure. Where candidates have simply added fields to and edited the properties of the existing database, as above, this meets the requirements of the lowest mark band and a mark can be chosen within this band according to the extent to which properties are appropriate, validation rules set and described. Where candidates have added tables to provide greater functionality this is most likely to meet the middle mark band and where they link these tables appropriately using the correct fields the highest mark band can be considered. However, if other requirements were missing, e.g. where there are no reasons for validation rules and/or where properties were left at their default settings, this would make a slightly lower mark more justifiable.

Previous reports have recommended that candidates are taught how to enforce referential integrity, as this can be used as a simple test of the appropriateness of links and error messages, if produced, are generally helpful to point to where adjustments are needed. There was evidence in this session of more candidates creating an appropriate structure and demonstrating it in this recommended way. The majority of candidates provided some evidence of appropriately modifying field types, lengths and added the correct fields. The addition of appropriate validation rules and explanation of these was usually the weakest area and where centre marking was over-generous, this was usually the reason. In some cases candidates simply provided evidence of their ability to add fields and change properties without showing all the instances where they had done this, making any assessment of the appropriateness/effectiveness of their modifications impossible. Where the electronic file of the database was supplied evidence was generally much clearer and sometimes showed that candidates had only carried out modifications on a limited section of the database, perhaps just

one table or just one or two fields from each, rather than making it an effective solution to the client brief.

LO2 assesses candidates' responses to the scenarios in Task 2. The extent, to which the requirements within these tasks, considering the output needed as well as any selection criteria, is a significant differentiator, along with the complexity of the queries and the appropriateness of reports created. Complex queries fully meeting requirements would be expected to use parameters rather than absolute values as query criteria, as the specific scenarios quoted in the task are clearly given as examples only. Where candidates have created queries to meet all the *examples* but have not used parameters to make these more general this section of the learning outcome will better fit Mark Band 2 rather than Mark Band 3 and some centre assessment was over-generous here.

Where candidates had used parameters, the main weakness was the quality and appropriateness of reports. Whilst there was an attempt at customisation by some candidates, it was often difficult to agree that the output fields had been fully considered and in many cases field contents were truncated and/or output would not fit onto a printed page. House style, however, was generally well understood and achieved.

LO3 assesses candidates' user interfaces, including forms created for their tables. At the higher levels, it is expected that sufficient forms will be created to enable data to be entered into all the main tables, i.e. those containing the data supplied. The assessment criteria state 'most' because some tables might be for lookup purposes only, in which case a form would be inappropriate, and if candidates choose to deal with one table by creating a sub-form within that for another then this would negate the need for a separate form. The user interface at the highest level should provide access to the data in the tables and to the output from queries but it is good practice to shield these basic features from an ordinary user by providing access to data in tables via forms and to query output via reports. There is no expectation, therefore, that user interfaces will include links directly to tables or queries, although candidates are not penalised if they do so. For full marks, the menu system should be logically and helpfully organised and should load at start-up. Additional functionality in the form of appropriate buttons should be evident on the forms and placed consistently. Both candidate achievement and centre marking in this learning outcome were generally strong.

LO4 assesses not simply candidates' testing and subsequent modifications but their explanations of their methods and the testing they carry out on other candidates' user interfaces. The specification lists testing methods, which should be taught and assessed, including the use of formal test plans, use of a range of test data, i.e. normal, extreme and erroneous, and end user/peer testing. This learning outcome was generally the weakest in candidate portfolios and the most over-generously assessed by centres. Most testing consisted of just one test of any one feature, with no explanation of any reasons for the choice of test data. At the higher levels, it would be expected that features such as validation rules would be tested with a range of data, including some of the sample data provided, to robustly test that they would accept all normal and extreme data but exclude all erroneous data. Some candidates appeared to be under the misapprehension that extreme data was 'extremely abnormal', rather than data at the extremities of acceptability, i.e. where errors are most likely to occur.

**R005**

This unit is about the creation of interactive multi-media products, with websites and PowerPoint products being the most popular choices. There are two OCR-set assignments – 'Out and Up' and 'Wind and Waves', both of which appear to be equally popular. It is possible for a centre to insert their own scenario so long as the tasks remain unchanged but this was not a commonly seen option. Candidates from some centres made it clear that they only had one realistic choice of software and this inhibited their ability to access the whole mark range in LO1. Centres choosing to evidence this unit purely as a paper-based portfolio put their candidates at a potential disadvantage, by necessitating the creation of a lot more screenshot evidence as well as rarely providing the evidence of appropriateness and functionality of interactivity and multimedia effects that is required to meet the requirements of the highest mark band in LO2. Where electronic evidence was provided, this did not always work fully on moderators' computers. It is important that products are tested on a stand-alone computer to ensure they will work outside the school network environment. PowerPoint products were more often exported appropriately this session and thereby provided fewer problems but websites created using Serif software frequently did not show all interactive effects. In such cases, a witness statement might be added to clarify what effects had been added, or candidate's own testing might include screenshots that showed particular features such as image galleries that often do not work on provided html files.

Generally, candidates' products were the strongest part of their portfolios for this unit but some concentrated on creating numerous similar pages, demonstrating only a very narrow range of interactive and multimedia effects. It is not permitted for centres to dictate the number of pages to be created. It is advised that candidates are reminded to focus on the stated requirements and to ensure that too much time is not spent creating too many pages addressing additional issues rather than concentrating on the quality of user experience, including navigation systems, interactivity and multimedia effects. For example, in the 'Out and Up' scenario, many candidates ignored the reference in the brief to an assault course, café and team-building exercises and created a product to advertise an outdoor activity centre of their own design.

A specification is expected to begin by stating what the candidate is setting out to do, including client requirements. These are then expected to be analysed to produce a clearly defined set of specific, measurable success criteria against which the extent to which the final product meets the client requirements can be determined. Where success criteria are appropriate, they should clearly demonstrate candidates' understanding of the range of client requirements, as given in the brief. Once the success criteria have been established the candidates are asked to choose a type of product, create designs for it, choose software and components that will allow them to realise their design ideas and provide reasons for these choices. The first section of LO1 assesses the basic statement of requirements and, most importantly, the success criteria, whilst the second section assesses the planning activities that should follow.

Centre marking was often over-generous in the first section of LO1, where success criteria were generic, not measurable, and did not evidence a good understanding of the brief. Simply copying the scenario, with perhaps some rewording, is not sufficient here to evidence understanding – it is the interpretation of requirements into specific success criteria that is needed at the higher levels. It is good practice to teach generic areas that success criteria should address, e.g. content suitable to needs, interactive features to add interest, time constraints etc., but candidates need to understand that these generic requirements need developing into specific criteria pertinent to any client brief being worked to. In some cases what candidates claimed to be success criteria were really design ideas, some candidates tried to

define what they needed to do to complete the assignment, rather than focussing on meeting the client brief and in other cases it was not clear what the centre had considered to be success criteria as none could be found.

Some candidates' planning was very thorough, including the range of planning documentation listed in the specification and demonstrating clear purpose throughout. However, it was common to find sparse planning documentation over-generously assessed by centres. A site plan and page plans for each page would be considered the minimum documentation required for planning to be 'sound'. In many cases centres appear to have guided candidates to approach tasks in a different order, which is not permitted, as candidates must be allowed to make their own, individual, responses to the tasks, and this may have disadvantaged them. For example, many candidates attempted to choose software and components before creating their design. If they follow the assignment tasks, they will have a design and be able to choose the software best able to enable them to realise this, giving them specific design ideas that might provide clear reasons why one type of product/software might be more appropriate than others. Similarly, when choosing components they will know exactly what they need for each section of their design. Simplistic reasons for choice of software, e.g. familiarity and/or the fact that it is the only one available, and components, e.g. simply identifying what an image shows and/or where it will be used, were often over-generously assessed by centres at the higher levels. Where such reasons were assessed as 'thorough justification', it is difficult to know what might have been considered simply 'sound' or even 'basic and limited'.

Candidates from most centres listed their components using a standard source table, despite the fact that such an approach is not mentioned in the assignment tasks. Generic source tables are likely to prompt for URLs and perhaps basic details of copyright but are unlikely to meet the specific requirements of the task, i.e. explanation of choices and of how legislative constraints could be complied with.

LO2 assesses the quality and appropriateness of the interactive multimedia products created, with the first section focusing on the basic combination of components and the navigation system and the second section assessing *other* interactive features (apart from the internal navigation system that has already been assessed) and multimedia effects.

Centre assessment in the first section was often quite accurate although some candidates creating simple systems with appropriate navigation systems were sometimes over-harshly marked in the lowest mark band and others, whose navigation system was essentially very similar, with nothing added, were sometimes over-generously marked in the highest mark band. What can be considered 'sound', i.e. demonstrating that the candidate has acquired appropriate knowledge and understanding, is different according to the type of product, but for a website, it would be a consistently constructed and placed navigation bar. A standalone product might appropriately use a menu page with a 'return to menu' on all other pages whilst an app would have a consistent navigation bar and/or burger menu button available from all pages. A system less organised than this but still allowing a user to choose their own route through the pages would best fit Mark Band 1 whilst something more would be needed for the highest mark band. This would likely to be a system that gave more thought to where a user might want to go from particular areas of the product, providing additional navigation in the form of extra links, and/or might use a more structured system of sub-menus or drop-downs on a navigation bar. Where errors or inconsistencies exist then a lower mark within the band should be chosen. Common errors seen included the use of inappropriately sized/placed buttons, unhelpful link labels, colour schemes that made link text difficult to read and PowerPoint systems where a user could circumvent the navigation system and just click through each slide through to the exit.

Centre marking of the second section of LO2 was more often over-generous, sometimes considering the internal navigation system a second time rather than looking for *additional* interactive features. Those creating PowerPoint applications were most likely to include only the most limited range of interactive features and multimedia effects. In some cases candidates created interactive forms using this software but these did not provide any method by which the data input by a user could be sent anywhere, so these had no real value – these candidates seemed to think that they were creating a mock-up of a website rather than an actual functioning product. If the creation of a form had been a client requirement then a standalone presentation would not be a suitable type of product to create. Candidates from some centres included a quiz, which did provide more complex navigation but did not add any additional interactivity and could not be considered appropriate to either of the assignment scenarios, both of which were about promoting a business.

The first section of LO3 assesses candidates' own testing of their products. Whilst screenshot evidence of every test is not required, candidates claiming to have tested features that clearly do not work, e.g. basic navigation links, cannot be credited with 'sound' testing. At the higher levels, there must be evidence of testing both during production and after completion of the product. Some candidates attempted to evidence this by producing two identical test tables with different dates but generally, these did not evidence sound testing, as tests at each stage should be different – tests during production will be of features as they are added to an incomplete product whilst tests after completion will test the product as a whole. Some candidates relied on others to test their product, which was not always appropriate. Basic functionality should be tested by the author whilst more subjective tests might benefit from additional input from test users.

The second section of LO3 assesses candidates' ability to gather *appropriate* feedback and analyse this against the success criteria. Where candidates focused on this they were able to achieve at the higher levels but in many cases whilst they did acquire some feedback they then provided their own evaluation of their product with little or no reference to the feedback obtained.

**R006**

Both OCR assignments were used again this session in roughly equal numbers, with understanding of each of the briefs often very limited. Where 'the Camera never lies' scenario was attempted, most candidates misinterpreted the set assignment as requiring an 'advert' or 'poster' to promote the local area, ignoring the title of the competition. Other candidates focused on trying to create photographic lies and forgot about the requirement to *promote* the local area. Where the 'Keep Pets' scenario was attempted most candidates focussed solely on the production of a logo and had not created any 'additional artwork'. This generally led to very simple graphics as outcomes, demonstrating only a narrow range of software skills.

The first section of LO1, as for R005, assesses candidates' specification of requirements and success criteria, and the extent to which these criteria demonstrate understanding of the brief. Comments in R005 above also apply to this unit.

Like R005, the second section of LO1 assesses planning and comments from that section relating to choice of components apply to this unit. Candidates often demonstrated only a limited range of research methods and in many cases; it appeared that any research carried out was focussed on meeting assessment criteria rather than for the development of ideas for their product. Some centre assessment of the range of research methods was over-generous where only one method, e.g. internet research, was evidenced. The range of research methods that

should be considered is listed in the specification. Additionally, many candidates failed to provide any evidence of designs for their solution whilst some appeared to think they had to create multiple alternatives.If this were the case then the assignment task would ask them to do so; the plural 'designs' is simply to allow for the fact that in some cases more than one sketch might (or might not) be needed to explain design ideas. At the higher levels, these designs should show some originality and creativity, a criterion that did not appear to have been addressed by the majority of centre assessors. In common with other criteria, if it is considered that this has been met then some comment on the Unit Recording Sheet should explain why; in this case, it would be a statement of what it is about the design that is considered original and/or creative. Where plans were limited to vague sketches that were insufficiently detailed for a third party to understand they could not be considered 'clear'.

The first section of LO2 assesses candidates' choice of software and the way they have set up the canvas before beginning to work on their image. Comments in R005 above relating to choice of software also apply to this unit. Most candidates provided some evidence of setting up the image before starting to work but this was not always the case, in which case marks in this section could only be very limited. Where evidence was, shown reasons were often vague and/or simplistic, usually covering either size *or* resolution but rarely both.

The second section of LO2 assesses the candidates' use of digital imaging software to produce an appropriate product to meet the client brief, and this should be used to determine the mark band of best fit, with evaluation of their own image and feedback on those of other candidates helping to determine the mark within the band. Although this is made very clear in the revised assignments, in common with previous sessions the requirement to provide feedback on other digital images was often not addressed, although some candidates did include feedback they had obtained from others on their own image.

Where candidates' understanding of the brief was good, with effective planning, the final products were often very good, with effective use of digital imaging software often evident. In some cases, candidates demonstrated good software skills but their final products did not convey the required message whilst in other cases the range of software tools used was not clear. Where centre assessors listed software tools used this was very helpful.

The first section of LO3 assesses candidates' filing of *digital images*, as per the teaching content of the unit. Where all candidates' electronic files were provided then evidence was very clear but some candidates provided little or no evidence of their storage of digital images, allowing credit only at the lowest level. Some centre assessment of fairly basic filing systems was over-generous, not taking into account the range of skills listed in the specification. For the highest level there should be evidence of the appropriate use of folders, appropriately named, separating graphic files from documents produced for the portfolio, including appropriate version control on a range of intermediate working files and clear labelling of final working and exported files.

The final section of LO3 assesses the way that candidates have presented their final image to the client. The list of presentation methods that should be taught can be found in the specification. Presentation by candidates was varied and in some cases, there was no evidence that it had been specifically addressed. Centre assessment was generous to candidates who had not specifically presented their product but had simply included it within the documentation for Task 2. Where candidates had clearly thought about where their artwork would be used it was still not always possible to agree centre marks as evidence of size, resolution, colour and proposed output medium was often limited. Where electronic files were submitted it was

possible to determine size and resolution and these were not always what candidates thought they would be, often due to starting by opening up a background image, thereby taking on that image's properties, rather than working on the canvas set up at the start. In some cases resolution was clearly not sufficient, even though the candidate had set the technical specification appropriately; this was often due to the choice of a very small component, perhaps used as a background image, which had been severely scaled up.

**R007**

This unit assesses the production of dynamic products, i.e. sound, video and/or animation, with almost all candidates choosing to create a video clip. There are two OCR-set scenarios – 'Local Area Promotion' and 'The Shoulderpads', which were used equally by centres, with comparable outcomes. In some cases candidates' achievement was affected by a limited analysis and understanding of the brief, with many following the local area scenario paying insufficient attention to the promotional aspect, resulting in a product *about* their local area. Many following the Shoulderpads scenario produced a product containing clips of '80s bands but failed to include information about the Shoulderpads, as given in the scenario, whilst others thought they were promoting concerts by the band.

Most Centres presented the electronic version of the final product, allowing qualitative assessment of both technical aspects of editing and fitness for purpose to be made. Regrettably, some centre submissions relied solely on printed screenshot evidence, which made it difficult to agree the qualitative criteria at the higher levels.

LO1 assesses candidates' understanding of the client requirements through their specification and success criteria. Comments made in the R005 section above are relevant here. Additionally, in this unit, the solution designed by the candidate, as evidenced in their timeline storyboard, is assessed within this first section and this did not appear to be appreciated by some centre assessors. Where there is no timeline storyboard the assessment requirements are not fully met at any level. At the higher levels, there must be something about the plan that demonstrates some originality and/or creativity and if this is considered met it is important for the internal assessor to document what it is about a candidates' design that is considered particularly original and/or creative. This might be, for example, a particular way in which the candidate decided to phrase some text/commentary, a well thought-through synchronisation of sound with visual content or any other innovative idea regarding content. Where plans merely consisted of a series of components with no apparent logical sequence or progression, it was not possible to agree that there was any evidence of originality or creativity. In many cases, the plans were insufficiently detailed to allow any assessment of this aspect. It should be noted that this learning outcome concerns planning and credit cannot be given for any retrospective documentation and/or screenshots of completed products. As in Unit 2, LO4, only a few centres provided any evidence, in the form of teacher statements, of the level of support given to candidates to produce their specifications. Where centres provide structure this would be considered a high level of support.

The second section of LO1 assesses the remaining planning activities, largely the selection of software and components appropriate for the realisation of the plan. Comments in R005 above regarding these aspects also apply to this unit.

LO2 assesses the production of the planned product, with the first section focussing on the use of editing software to produce the product from the chosen components and the second section focussing on the export of that product into a usable format. Where planning had been carried

out effectively, it was more likely that products would be appropriate to the brief. Regrettably, many candidates used video editing software to create little more than a slideshow of text and still images, with perhaps a token video clip that rarely added to the quality and effectiveness of the final product. In many cases, there was little or no evidence of editing components before adding them to the product and original components, as required at the highest level, were generally limited to the inclusion of one or two photographs or a logo. This cannot be considered to meet the definition of 'some' as defined in the glossary in Appendix D of the specification. Where candidates added their own soundtrack, with commentary, created with the visual content in mind, which included original photographs/video clips as required by the plans, the requirements were met in full.

The evidence provided did not always show clearly what software tools had been used to edit components and enhance the final product, and this was especially the case where candidates relied on the final electronic file alone. Unless clear evidence of the components used was provided it was sometimes difficult to determine exactly what the candidates had done. Additionally, where editing is subtle, which may well be the case where software is used well; it cannot be clearly seen by an assessor/moderator.

The second section of LO2 assesses the export of the product and candidates' understanding of different file formats, as evidenced by their descriptions. As in LO1, the level of support needed by candidates to choose an appropriate format for export was generally not confirmed by teachers. Most candidates, particularly those providing electronic evidence, showed that they had exported their file but understanding of the advantages and disadvantages of different file formats was often a weakness of the unit. Some candidates wrote about different formats but demonstrated little understanding, rewording researched material, in many cases unsuccessfully, with some focussing on irrelevant features, e.g. giving the disadvantage of a file format that it does not allow editing or interactivity when the requirement was for export of a completed product that did not have any interactivity. Where candidates referred back to the brief and their success criteria, they were able to try out different formats to assess which provided the most effective final product for the client. In some cases, candidates confused file formats with settings, thereby demonstrating none of the understanding required by the assessment criteria.

The final learning outcome of this unit assesses candidates' planning and implementation of a testing strategy, with the first section concentrating on the test plan and the second on the actual testing carried out. Comments in the R005 section above relating to testing also apply here. A formal plan, identifying specific areas of the planned product to test, tests to be carried out (i.e. what will be done to test them) and expected results, is required at the higher levels of the first section, with a 'thorough' plan covering all key points of the plan and all success criteria. In many cases, even basic tests, e.g. readability of captions, overall message of the product and appropriateness of the exported product were missing from test plans.

Evidence of testing at both stages – during production and post-completion – is required before assessment criteria are fully met at any level and, as in R005, evidence of testing during production was often missing.

**R008/9/10/11**

These units, submitted by only a very small number of candidates, were assessed for the last time this session due to the withdrawal of the Diploma option, which was the only qualification from this suite for which they could be submitted.

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