ELC

Design & Technology

Entry Level Certificate **R371-R375**

OCR Report to Centres June 2015

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Entry Level Certificate

Design & Technology (R371 – R375)

OCR REPORT TO CENTRES

R371-375 Design and Technology

General Comments

It was evident that most centres have been successful in submitting their candidates for this qualification, and it is encouraging to see the number of candidates who produced some very creditable pieces of folder and practical work.   Centres had the opportunity to enter candidates from one or more of the following five materials areas: Electronics, Graphics, Industrial Technology, Resistant Materials, and Textiles. Centres are increasingly entering candidates for more than one material area. It is possible, for example, for candidates to follow a combined course which covers the work of both Industrial Technology and Resistant Materials or indeed Electronics. The most popular this year were Resistant Materials, Graphics and Textiles. Industrial Technology in particular attracted very few entries, perhaps because it was seen as one of the more modern areas and hence as being harder than the others. This was untrue, as all areas are of the same degree of difficulty - only the content differs.

OCR provided a range of themes and tasks from which candidates selected one task. The task focused on the design, development and making of one product that was capable of being tested and evaluated.

The standard of practical work observed was good in the majority of centres, particularly as regards the range of skills and techniques used in the making of the products. There was very little unfinished work submitted; most was complete, functioning and suitable for the design task selected. Many centres are beginning to encourage their candidates to test their products in 'real life' situations. This is very good practice and is to be encouraged.

The presentation and standard of work was very good from the majority of centres, with folios being clear and well-presented and including a good range of photographic evidence of the final products shown. Centres are also increasingly providing photographic evidence of the making process to show how the product develops. Where students had been encouraged to label clearly and organise their folios into the separate objectives, moderation was much easier. Many centres had used the Coursework Cover Sheets (CCS/R371-375) and had annotated them to explain how the marks had been awarded - this was very helpful to moderators. Most centres provided support sheets which gave the candidates a starting point and allowed them to demonstrate positive achievement. A minority of centres used their own pro-forma sheets which unfortunately did not allow candidates to address all criteria necessary for assessment and certainly would not allow them to achieve the higher marks.

Some centres have approached the subject as a group exercise. If this is the approach chosen, care must be taken that it is not too restrictive in what it allows the candidates to contribute. Occasionally it can be a little too teacher-directed. Whilst some candidates may need a tightly controlled structure in order to be successful, this approach can restrict individual flair and creativity, and make it very difficult to identify each individual's contribution. If care is not taken, the folios in such centres can also end up with much of the content duplicated.

There was increasing widespread evidence of the successful use of ICT. Candidates were able to research information, scan their sketched ideas on to the computer, use CAD packages to model ideas and provide digital images. There is some evidence of the use of CAD/CAM, but this is not extensive.

A number of centres are using this new qualification for candidates with special educational needs, as well as to engage and motivate disaffected students. Some candidates start working at GCSE level and, if for whatever reason they have not been able to complete the course, they have nevertheless managed successfully to complete an Entry Level course.   In such cases,

care must be taken that the assessment criteria in all units and Assessment Objectives are met. In addition, some centres are using the Entry Level course in year 9 to prepare candidates for GCSE Design and Technology qualifications.

Moderation

Moderators appreciated the efforts of those centres who had added annotation to their completed cover sheets, which made it clear to see where they had awarded marks. Centres are generally very efficient in sending samples to moderators and had clearly marked folders with candidates' names/numbers. There were very few clerical errors and little missing documentation.   However, it would be helpful if centres could indicate on the cover sheets the actual breakdown of marks awarded within each level of response, rather than just a total. This makes it easier for a moderator to review the centres' marks.

Photographic evidence of the final product is a basic requirement of this process, and supporting photographs, showing the process of making the product, always provide moderators with further information. In most cases photographs were taken using a digital camera, and the overall quality of these is generally good. There was often a good range of photographs, particularly in the making section. A minority of centres provided only a single photograph of the final product, which sometimes made it difficult to fully appreciate it. Some centres send the more two-dimensional products to the moderator along with the folders.   However, it is not necessary to send the actual product.

In some cases, writing frames and prompts were helpful to candidates in formulating appropriate responses. Whilst it is noted that centres are in the best position to know their own students and their capabilities, centres have to be careful because this approach may have restricted some candidates. On occasions work was over-structured by centres, resulting in one-word answers. In Entry Level, additional teacher assistance is welcomed but marks may only be awarded for work undertaken and completed by the candidate. Many teachers provided good annotation/witness statements on individual performance, showing clearly how much and where assistance had been given.

Design and Creativity (AO1)

In this objective most candidates were able to recognise a design need or opportunity. They were able to research their topic, often by using the internet, in response to their brief. There were several examples of very good practice where candidates made visits to relevant places and photographed items for use in researching their chosen task. This is to be commended as an effective design tool. Occasionally candidates need to be more discriminating and focused in regard to the type and amount of research submitted for moderation. There is little point in just putting all work undertaken within Design and Technology lessons into a folder if it is not relevant to the specific task.

Once candidates established a clear starting point, they were able to produce suitable ideas that satisfied their design need or brief. Some candidates found it difficult to express their ideas on paper but then successfully managed to develop their design ideas through the use of modelling. There was evidence of both three-dimensional modelling and computer-based CAD modelling. This is to be particularly encouraged, since it helps candidates to show their thought processes and allows them to overcome problems before construction begins. In this way candidates provided clear evidence of their contribution to a more detailed design specification, although this was carried out with varying degrees of success.

Where candidates had carried out a detailed product analysis, this gave them all the information required to produce a quality product, as the analysis identified the key characteristics of successful product design.

Making (AO2)

One key aspect of making a successful product is successful planning. Although there is evidence that some candidates find it difficult, they need to develop a plan of making. This was well done in some cases, with clear evidence backed by notes and drawings.

Candidates need to select and use suitable materials, tools and equipment. Once again, the candidates achieving the higher marks showed clear photographs of themselves using tools and equipment, with annotation and sketches to explain the process. There were a number of candidates who found the recording of this difficult, and it is here that the centres' annotation on the Coursework Cover Sheets is important.

Candidates have to use a range of skills and techniques appropriate to the task. Here again the centres' annotation is vital in helping to record the amount of guidance they required. This is also the area where centres must guard against generosity in the marking of candidates who use a very limited range of skills.

This objective requires candidates to recognise possible problems in the designing and making process, and to suggest solutions. This seemed to be an aspect of the designing process that was not fully covered during teaching. If centres are to award high marks in this section, there needs to be evidence to support the candidates' suggestions. The best examples provided product information by way of annotated diagrams and by modelling and testing in real-life situations.

The majority of centres submitted practical work which was of a high standard and of which the candidates could be proud. There was very little unfinished work submitted.

Evaluation (AO3)

Being the end of the design-and-make process, this section was weakest, with some centres providing minimal evidence. At times there was little testing of the product and limited references made to materials, tools and equipment. Conversely, some centres make a feature of encouraging their candidates to use the product for its intended purpose to test its suitability and suggest some further development of the product. Centres need to look at the assessment criteria on the Coursework Cover Sheet and direct candidates to the specific requirement if they are to achieve the higher marks. There were some good examples of third-party testing, either by peers/teachers or by the person for whom the product was intended. Some of the better examples demonstrated testing of the product, with some reference to the original specification and also a review of the materials and time used. Some centres provided photographic evidence showing the product in use and on which the candidate could comment.

Administration

It was encouraging to note that the majority of folders were well organised and well presented, with clear labelling and secure binding. Please note that the Coursework Cover Sheet form (CCS) is required. As one is required per candidate, it is helpful to have this affixed to the front of each candidate's folio. The Coursework Summary Form (CSF) is an optional form that allows centres to list all of the candidates on one form and is particularly helpful to the moderation process.

Conclusion

In general, centres are to be congratulated on the care and the commitment involved in meeting the requirements for assessment. It is clear that the Entry Level Design and Technology qualification is providing accreditation for a number of candidates who would not have been able

to successfully achieve at GCSE. It can provide a valuable course for those with special needs, whilst also motivating and engaging disaffected students. It is designed to work alongside the GCSE, but it is also being used successfully by some centres in Year 9 as an entry route in preparing for the GCSE. Candidates have been given the opportunity to succeed and reach their true potential, producing quality outcomes and products to be proud of.

Centres are reminded that this specification can be taught over one or two years and candidates may be entered for more than one material area.

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