

# guide to controlled assessment Version 3 April 2011

Textiles

Technology











Electronics & Control Systems

# GCSE

Design and Technology: Electronics and Control Systems

J301 – Full Course J041 – Short Course

This guide is designed to accompany the specification for teaching from September 2009. This guide contains the following support:

Summary of Controlled Assessment Units

Teacher's guidance on how to plan Controlled Assessment

Teacher guidance on task marking

Guidance on downloading tasks

Frequently asked questions

OCR GCSE DESIGN AND TECHNOLOGY

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# 1.1 What Is Controlled Assessment?

Controlled Assessment is a new form of internal assessment. Following a coursework review by QCA, Controlled Assessment has been introduced as part of nearly all new GCSEs, to replace coursework.

High, medium or limited control levels are set for each of the Controlled Assessment processes: task setting, task taking and task marking. For each stage, the level of control will ensure reliability and authenticity, and make assessments more manageable for teachers and candidates.

Weighting of Controlled Assessments is defined by QCA subject criteria and, depending on the subject, will be 25% or 60% of the total assessment.

## 1.2 What does 'control' actually mean?

QCA has produced a *Glossary of terms for Controlled Assessment regulations*. The levels of controls are defined as follows:

- Formal supervision (High level of control) the candidate must be in direct sight of the supervisor at all times. Use of resources and interaction with other candidates is tightly prescribed.
- Informal supervision (Medium level of control) questions/tasks are outlined, the use of
  resources is not tightly prescribed and assessable outcomes may be informed by group
  work. Supervision is confined to (i) ensuring that the contributions of individual candidates
  are recorded accurately, and (ii) ensuring that plagiarism does not take place. The supervisor
  may provide limited guidance to candidates.
- Limited supervision (Limited level of control) requirements are clearly specified, but some work may be completed without direct supervision and will not contribute directly to assessable outcomes.

# 1.3 What is the purpose of this guide?

This Guide provides detailed information for teachers about how to manage Controlled Assessment: some of the information applies to all GCSE subjects and some information provides subject specific guidance. It is important to make the point that this Guide plays a secondary role to the Specification itself. The Specification is the document on which assessment is based and specifies what content and skills need to be covered in delivering the course. At all times, therefore, this teacher support should be read in conjunction with the Specification. If clarification on a particular point is sought then that clarification should be found in the Specification itself.

Teaching of this qualification will vary greatly from school to school and from teacher to teacher. With that in mind, this Guide is offered as guidance but may be subject to modifications by the individual teacher.

# 2 Summary of the Controlled Assessment units

# Unit A511: Introduction to designing and making

This unit aims to give candidates an introduction to designing and making in electronics and control systems.

Candidates must select one of the published themes as a starting point for this unit, which forms a Controlled Assessment element of this specification. Once selected, the candidate will then need to identify a specific product or starting point that is associated with the theme.

Candidates then undertake research associated with the specific product before establishing their own design brief and detailed specification for an improved or similarly functioning prototype\* product.

They then develop their design and use modelling before making and evaluating their prototype product. Throughout, the candidate will record research and design developments using portfolios.

Unit A511 makes up 30% of the total GCSE marks (60% of the Short Course GCSE) and is a 20 hour Controlled Assessment portfolio which is 60 marks in total.

\*In this context a prototype is defined as the first example of a product that could be further developed or modified.

## Unit A513: Making quality products

The main aim of this unit is to further develop skills and abilities gained from Unit A511, in order to design and make a fully functioning quality product.

In this unit candidates complete a 'design and make' Controlled Assessment using one of the OCR published themes as a starting point.

Candidates gain the knowledge, skills and understanding they need to design, plan, make, test and critically evaluate their final product. Candidates need to be able to:

- develop and demonstrate designing skills based around a design brief and specification, using annotated drawings to record original design ideas, appropriate making and trialling techniques, CAD/CAM/ICT and other digital technologies and by making reasoned decisions about materials and components to select a final design idea.
- demonstrate good making skills through a plan of action, the selection of appropriate materials and equipment, by working safely and skilfully with materials and components to

produce a quality functional product and by demonstrating a practical and thorough understanding in solving technical problems effectively.

• demonstrate critical evaluation skills when evaluating the final product against the specification; through meaningful testing of the product and when suggesting modifications to improve the making process.

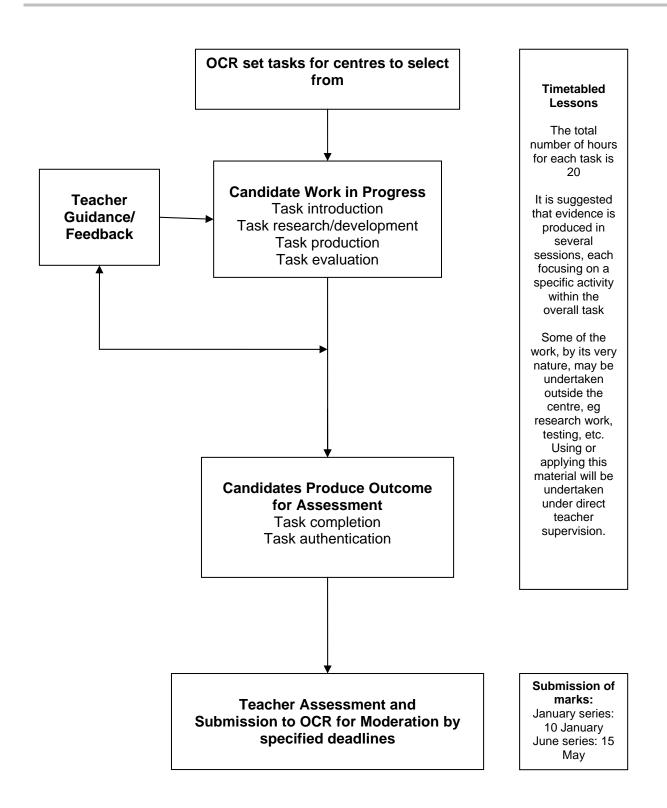
Unit A513 makes up 30% of the total GCSE marks and is a 20 hour Controlled Assessment portfolio which is 60 marks in total.

At the end of this unit most candidates will:

- be able to recall, select and communicate sound knowledge and understanding of textiles. They will be able to select appropriate materials and components for a particular need considering their working properties and select appropriate tools, equipment and processes.
- apply knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks. They test solutions, working safely and with precision.
- be able to review their work, analysing and evaluating information clearly and with some accuracy. They will be able to make judgements and draw appropriate conclusions.

# 3 Teacher guidance on how to plan Controlled Assessment

# 3.1 Controlled Assessment delivery flow chart



# 3.2 Guidance on the release of Controlled Assessment tasks to candidates

## 3.2.1 Choice of Controlled Assessment task

OCR will assume a high level of control in relation to the setting of tasks. A number of Controlled Assessment tasks will be available from OCR for the Controlled Assessment units. These tasks have been designed to meet the full assessment requirements of the unit. Candidates will need to take part in a planned learning programme that covers the underpinning knowledge and skills of the unit in addition to completing the evidence requirements of the designated assessment tasks.

Centres can choose one from a number of theme based tasks offered by OCR (see Appendix C of the Specification). These tasks can be used with a minimum amount of adaptation or they can be adapted so that they allow the usage of local resources available to any centre. These tasks may also be set within overarching scenarios and briefs more relevant to centres' own environment and targeted at their particular cohorts of candidates.

Controlled Assessment tasks may be adapted by centres in ways which will not put at risk the opportunity for candidates to meet the Assessment Criteria, including the chance to gain marks at the highest level. For some units this may allow for little to be adapted other than cosmetic details, eg the description and nature of a company on which a task is based. For other units the medium in which the candidates are working may be a matter of choice. Each Controlled Assessment task includes a section that briefly specifies the type and degree of adaptation that is appropriate under the heading 'Starting Point'.

The same OCR Controlled Assessment task must NOT be used as the practice material and then as the actual live assessment material. Centres should devise their own practice material using the OCR specimen Controlled Assessment task as guidance.

### 3.2.2 When and how to give Controlled Assessment tasks to candidates

Controlled Assessment tasks will be available from Interchange from 1 June to 15 May of the year prior to an assessment series, i.e. 1 June 2009 for assessment in June 2010 series.

The nature of a unitised qualification means that candidates may embark on a Controlled Assessment task either as a short focussed activity or as a longer on –going activity. Teachers may prefer to select appropriate themes based on knowledge of the facilities available at the centre. Other centres will give their candidates an open choice. What is essential is that the work of candidates is 'controlled' in such a way to preserve the integrity of the qualification while allowing candidates to work safely and independently.

(a) **Authenticity control:** Candidates will complete all work for assessment under direct teacher supervision. However, it is acceptable for some aspects of research and data collection to be outside the direct supervision of the teacher but the teacher must be able to authenticate the work and insist on acknowledgement and referencing of any sources used.

(b) **Feedback control:** Feedback to candidates will be encouraged but tightly defined. Within GCSE in Food Technology, OCR expects teachers to supervise and guide candidates who are undertaking work that is internally assessed. The degree of teacher guidance in candidates' work will vary according to the kinds of work being undertaken. It should be remembered, however, that candidates are required to reach their own judgements and conclusions. When supervising tasks, teachers are expected to:

- offer candidates advice about how best to approach such tasks
- review candidates' work, and provide advice at a general level. Teachers must not, however, provide detailed and specific advice on how the work may be improved to meet the assessment criteria
- exercise continuing supervision of work in order to monitor progress and to prevent plagiarism
- exercise continuing supervision of practical work to ensure essential compliance with Health and Safety requirements
- ensure that the work is completed in accordance with the specification requirements and can be assessed in accordance with the specified marking criteria and procedures.

(c) **Time control:** The time limit available to candidates to complete the assessment task is 20 hours as specified within the unit. Tasks will be set within a broader learning programme which will allow the acquisition of subject specific knowledge and the development of appropriate practical skills.

Controlled assessed work should be completed within the time limit and supervised and marked by the teacher. With all internally assessed work, the teacher must be satisfied that the work submitted for assessment is the candidate's own work and be able to authenticate it using the specified procedure.

(d) **Collaboration control:** Candidates must complete and/or evidence all work individually. With reference to collaboration control, all assessment evidence will be provided by the individual candidate. Where group work is undertaken it is vital to be able to identify the unique individual contribution made by each candidate.

(e) **Resource control:** Candidates will need to be provided with the most appropriate materials and equipment to allow them full access to the marking criteria. For Units A511 and A513, basic workshop equipment will be adequate; however, the use of specialist equipment and ICT may be required to enable the candidate to produce the desired outcome. Candidates may also need access to resources and process only available outside the centre environment.

## 3.4.1 Controls for the production of the outcome

Teachers must keep live Controlled Assessment tasks secure and confidential at all times whilst in their possession. For example, candidates may collect the results of any research or investigations undertaken in a research folder which must be handed in to the teacher before the writing up sessions begin. In such circumstances, it is the responsibility of the teacher to keep the research folders secure between the writing up sessions and that candidates do not have access to these folders outside of the allotted sessions.

Candidates should be allowed sufficient time to complete all of the tasks. It is suggested that evidence is produced in several sessions, each focusing on a specific task within the overall task. These may be interspersed with opportunities to learn knowledge and develop appropriate practical skills

Each candidate must produce individual and authentic evidence for each of the tasks. It is particularly important that candidates working in groups, where the unit allows this, should still produce individual evidence of their contribution to ongoing group work and any final realisation or outcome.

Centre staff may give support and guidance to candidates. This support and guidance should focus on checking that candidates understand what is expected of them and that they work safely. Candidates will also need support and guidance when accessing materials provided by the centre.

Candidates may use information from any relevant source to help them with producing evidence for the tasks.

In general, candidates must be guided on the use of information from other sources to ensure that confidentiality and intellectual property rights are maintained at all times. It is essential that any material directly used from a source is appropriately and rigorously referenced. Where a dataset or case material is provided, it is acknowledged that candidates in their responses will refer to situations in the assessment material but as this is fictitious this does not break any rules of confidentiality or copyright.

## 3.4.2 Controlled Assessment task security

It is the responsibility of the centre to ensure that downloaded Controlled Assessment Tasks and candidates' scripts are stored securely. Any breach in security must be reported to OCR as soon a possible by submitting a written report (a blank report form is available on Interchange) from Head of Centre to OCR Quality and Standards Division detailing the circumstances, the candidates concerned and any action taken.

Candidates' scripts for all completed Controlled Assessment tasks must be stored securely and they should be available for moderation. It is suggested that they are destroyed after the last date for Enquiries about Results following the examination series in which entries for the units concerned are made.

#### Candidate absence at the time of assessment

If a candidate is absent from a centre when an assessment is carried out, the Controlled Assessment task may be set at an alternative time provided that the centre is satisfied that security has been maintained by keeping all materials secure.

#### **Unexpected circumstances**

If an unexpected problem (such as a fire alarm or other circumstances beyond the teachers' control) occurs while a Controlled Assessment task is taking place, the task may be resumed subsequently provided the teacher ensures that no candidate is likely to have been advantaged or disadvantaged by doing so.

#### 3.4.3 Presentation of work

Candidates must observe certain procedures in the production of Controlled Assessments.

- tables, graphs and spreadsheets may be produced using appropriate ICT. These should be inserted into the report at the appropriate place
- any copied material must be suitably acknowledged
- quotations must be clearly marked and a reference provided wherever possible
- work submitted for moderation or marking must be marked with the:
  - centre number
  - centre name
  - candidate number
  - candidate name
  - unit code and title
  - task title.

Work submitted on paper for moderation or marking must be secured by treasury tags. Work submitted in digital format (CD or online) must be in a suitable file structure as detailed in Appendix C of the Specification.

# 4 Controlled Assessment candidate guidelines

# 4.1 Task setting

For this subject OCR will provide a list of tasks for you to select from. The task will be set, however you may be able to adapt the task or select your own. This should be done in consultation with your teacher.

# 4.2 Task taking

## 4.2.1 What can I do in relation to research, drafting and re-drafting?

Your teacher will discuss the briefs/tasks on offer and the proposed areas of enquiry and the resources available. An induction period into the research methods, sourcing and the use of equipment may also take place. Time constraints and a programme should be adopted and this will be explained by your teacher.

Your research and planning may involve interviews, fieldwork, visits, library research, internet research or questionnaires. You should keep a record of the sources you have consulted at this stage and this will form part of your portfolio. You should provide a plan of action to the teacher which can be discussed. You teacher will inform you what materials are appropriate and inappropriate.

Your draft piece will be discussed with your teacher and they may offer advice, answer any questions and give feedback. Throughout this process your teacher will supervise to ensure there is no plagiarism and will ensure all your work is within the Health and Safety requirements and that all candidates work is in accordance with the Controlled Assessment regulations. At no stage will model answers be provided. You should reach your own conclusions and make your own judgements and any teacher support will be recorded.

You may be given opportunity to edit, check redraft and reorganise your work. During this period your teacher may make general observations but will not give any specific advice.

### 4.2.2 How much teacher support can I expect?

During your work for Controlled Assessment you must produce work/evidence independently but your teacher will be able to give you some advice, support, guidance and feedback but the amount will vary depending upon the type of task you are doing.

You must make your own judgements and draw your own conclusions but your teacher will:

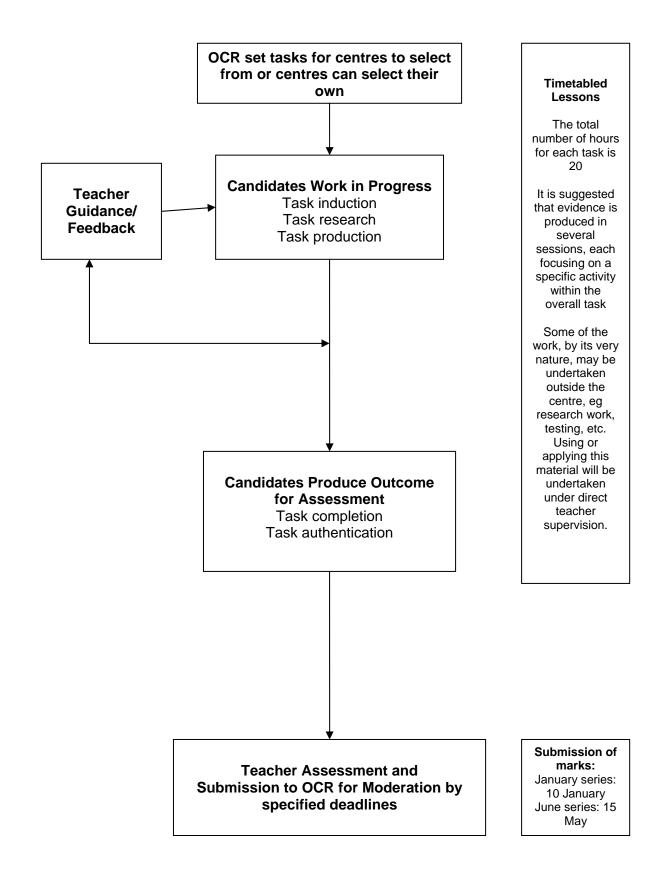
- offer advice about how best to approach a task
- offer guidance on the way you work in groups so that you all have an opportunity to tackle your tasks
- monitor your progress to make sure your work gets underway in a planned and timely manner
- ensure that your work meets the Specification requirements
- keep a log of the feedback they give you
- supervise any practical work you do to ensure you receive advice about health and safety.

The support given by your teacher will be to make sure you understand what it is you have to do. Your teacher will not be allowed to provide model responses for you or work through your responses or outcomes in detail.

#### 4.2.3 What can I expect in the supervised sessions?

This period should include some form of evaluation either in the written form, in a teacher interview or a presentation to the group. For the last two your teacher may record these sessions. This is particularly essential in group work where the teacher will be attempting to ascertain your individual contribution within the group.

You should reference all sources used and any materials you have used in the whole piece whether in supervised or unsupervised sessions. Quotations should be clearly marked and referenced to ensure all intellectual property rights are maintained. It is unlikely that complete downloaded documents from the internet are suitable. Your teacher will sign an authentication form to complete the process. You may also be asked to sign the form.



# 5 Teacher guidance on task marking

# 5.1 Generic guidance on how to mark Controlled Assessment tasks

The starting point for marking the tasks is the Marking Criteria within each unit. These contain levels of the skills, knowledge and understanding that the candidate is required to demonstrate. Before the start of the course, and for use at INSET training events, OCR will provide exemplification through real or simulated candidate work, which will help to clarify the level of achievement the assessors will be looking for.

The assessment task(s) for each unit should be marked by the teacher according to the given marking criteria within the relevant unit using a 'best fit' approach. For each of the assessment criteria, one of the descriptors provided in the marking grid that most closely describes the quality of the work being marked should be selected.

Marking should be positive, rewarding achievement rather than penalising failure or omissions. The award of marks **must be** directly related to the marking criteria.

Teachers use their professional judgement in selecting the descriptor that best describes the work of the candidate.

To select the most appropriate mark within the descriptor, teachers should use the following guidance:

- where the candidate's work *convincingly* meets the statement, the highest mark should be awarded
- where the candidate's work *adequately* meets the statement, the most appropriate mark in the middle range should be awarded
- where the candidate's work *just* meets the statement, the lowest mark should be awarded.

Centres should use the full range of marks available to them; centres must award *full* marks in any band for work that fully meets that descriptor. This is work that is 'the best one could expect from candidates working at that level'. Where there are only two marks within a band the choice will be between work that, in most respects, meets the statement and work that just meets the statement. For wider mark bands, the marks on either side of the middle mark(s) for 'adequately met' should be used where the standard is lower or higher than 'adequate' but **not** the highest or lowest mark in the band.

Only one mark per unit will be entered. The final mark for the candidate for each unit is out of a total of 60 and is found by totalling the marks for each of the marking criteria strands.

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# 5.2 Unpacking assessment objectives in Controlled Assessment tasks

It can be seen from the Assessment Objectives in Section 4.6 of the specification and their weightings against Units A511 and A513 that there is a different emphasis in the two Controlled Assessment units.

In A511 Assessment Objective AO1 is significant. This unit asks candidates to design creatively. Candidates are asked to show understanding in design and to convey the wider effects of design. In Unit A513 AO1 is not significant as design work in this unit is more targeted at making and more constrained.

Assessment Objective AO2 is very significant in both units A511 and A513, but carries comparatively less weight in Unit A511 as the making activity in this unit is largely modelling to support and test design. In Unit A513 there is greater emphasis on a finished, high quality product.

Units A511 and A513 carry similar weightings for Assessment Objective AO3, demonstrating the value that is placed in the design process on critical objective evaluation and reflection by the candidate on the process of design.

## 5.3 Interpretation of the Controlled Assessment marking criteria

### 5.3.1 Unit A511: Introduction to designing and making

The assessment evidence for this unit should be marked by the teacher according to the given marking criteria using a 'best fit' approach. For each of the assessment criteria, one of the descriptors provided in the marking grid that most closely describes the quality of the work being marked should be selected. Marking should be positive, rewarding achievement rather than penalising failure or omissions. The award of marks must be directly related to the marking criteria.

Step 1: Teachers use their professional judgement in selecting the descriptor that best describes the work of the candidate. The columns are headed Basic ability, Demonstrate ability and Works competently.

Step 2: Teachers select the most appropriate mark within the descriptor, using the following guidance:

- where the candidate's work convincingly meets the statement, the highest mark should be awarded
- where the candidate's work adequately meets the statement, the most appropriate mark in the middle range should be awarded
- where the candidate's work just meets the statement, the lowest mark should be awarded.

Centres should use the full range of marks available to them; centres must award full marks in any band for work that fully meets that descriptor. This is work that is 'the best one could expect from candidates working at GCSE level'. Where there are only two marks within a band the choice will be between work that, in most respects, meets the statement and work that just meets the statement. For wider mark bands, the marks on either side of the middle mark(s) for adequately met should be used where the standard is lower or higher than 'adequate' but not the highest or lowest mark in the band.

The final mark for the candidate for each unit is out of a total of 60 and is found by totalling the marks for each of the marking criteria strands. OCR's Banded Mark Schemes are designed to reward candidates for their achievements and to place marks accurately so that assessments are directly and easily comparable.

## 5.3.2 Unit A513: Making quality products

The assessment evidence for this unit should be marked by the teacher according to the given marking criteria using a 'best fit' approach. For each of the assessment criteria, one of the descriptors provided in the marking grid that most closely describes the quality of the work being marked should be selected. Marking should be positive, rewarding achievement rather than penalising failure or omissions.

Step 1: Teachers use their professional judgement in selecting the descriptor that best describes the work of the candidate. The columns are headed Basic ability, Demonstrate ability and Works competently.

Step 2: Teachers select the most appropriate mark within the descriptor, using the following guidance:

- where the candidate's work convincingly meets the statement, the highest mark should be awarded
- where the candidate's work adequately meets the statement, the most appropriate mark in the middle range should be awarded
- where the candidate's work just meets the statement, the lowest mark should be awarded.

Centres should use the full range of marks available to them; centres must award full marks in any band for work that fully meets that descriptor. This is work that is 'the best one could expect from candidates working at that level'. Where there are only two marks within a band the choice will be between work that, in most respects, meets the statement and work that just meets the statement. For wider mark bands, the marks on either side of the middle mark(s) for adequately met should be used where the standard is lower or higher than 'adequate' but not the highest or lowest mark in the band.

Only one mark per unit will be entered. The final mark for the candidate for each unit is out of a total of 60 and is found by totalling the marks for each of the marking criteria strands.

Teachers/course tutors must be confident that the work they mark is the candidate's own. This does not mean that a candidate must be supervised throughout the completion of all work but the teacher/course tutor must exercise sufficient supervision, or introduce sufficient checks, to be in a position to judge the authenticity of the candidate's work.

Wherever possible, the teacher/course tutor should discuss work-in-progress with candidates. This will not only ensure that work is underway in a planned and timely manner but will also provide opportunities for assessors to check authenticity of the work and provide general feedback.

Candidates must not plagiarise. Plagiarism is the submission of another's work as one's own and/or failure to acknowledge the source correctly. Plagiarism is considered to be malpractice and could lead to the candidate being disqualified. Plagiarism sometimes occurs innocently when candidates are unaware of the need to reference or acknowledge their sources. It is therefore important that centres ensure that candidates understand that the work they submit must be their own and that they understand the meaning of plagiarism and what penalties may be applied. Candidates may refer to research, quotations or evidence but they must list their sources. The rewards from acknowledging sources, and the credit they will gain from doing so, should be emphasised to candidates as well as the potential risks of failing to acknowledge such material. Centres should reinforce this message to ensure candidates understand what is expected of them.

**Please note:** Centres must confirm to OCR that the evidence produced by candidates is authentic. The Centre Authentication Form (CCS160) provided includes a declaration for assessors to sign. It is a requirement of the QCA Common Criteria for all Qualifications that proof of authentication is received. Failure to provide centre authentication could result in candidates being penalised.

## 5.5 Internal Standardisation of Controlled Assessment

It is important that all internal assessors, working in Design and Technology, work to common standards. Centres must ensure that the internal standardisation of marks across assessors and teaching groups takes place using an appropriate procedure.

This can be done in a number of ways. In the first year, reference material and OCR training meetings will provide a basis for centres' own standardisation. In subsequent years, this, or centres' own archive material, may be used. Centres are advised to hold preliminary meetings of staff involved to compare standards through cross-marking a small sample of work. After most marking has been completed, a further meeting at which work is exchanged and discussed will enable final adjustments to be made.

## 5.6 Moderation of Controlled Assessment

Teachers mark the tasks using the assessment criteria and guidelines provided by OCR.

OCR moderates their marking.

OCR Moderators externally moderate the teacher's marking to ensure that the assessment criteria have been applied fairly and consistently to the national standard. On the basis of this moderation, scaled adjustments may be recommended.

Following marking and internal standardisation by the centre, candidate marks are submitted to OCR, after which moderation takes place in accordance with OCR procedures: refer to the OCR website for submission dates of the marks to OCR. The purpose of moderation is to ensure that the standard of the award of marks for work is the same for each centre and that each teacher has applied the standards appropriately across the range of candidates within the centre.

The sample of work which is presented to the Moderator for moderation must show how the marks have been awarded in relation to the marking criteria defined in Appendix B of the Specification.

Each candidate's work should have a cover sheet attached to it with a summary of the marks awarded for each task. If the work is to be submitted in digital format this cover sheet should also be submitted electronically within each candidate's files.

## 5.7 Minimum requirements for Controlled Assessment

There should be clear evidence that work has been attempted and some work produced.

If a candidate submits no work for an internally assessed component, then the candidate should be indicated as being absent from that component on the mark sheets submitted to OCR. If a candidate completes any work at all for an internally assessed component, then the work should be assessed according to the internal assessment objectives and marking instructions and the appropriate mark awarded, which, for work worthy of no marks, will be zero.

## 5.8 Submission date for Controlled Assessment

Candidates marks must be despatched to the Moderator and to OCR. Please refer to the OCR website for details of submission dates relevant to the current series of examinations.

#### What are the dates in which the Controlled Assessments can be taken?

Controlled Assessment is a form of internal assessment and as such there isn't a specified date in which Controlled Assessment has to be taken.

It is up to the centre to decide when Controlled Assessment will be taken: guidance on this can be found in Section 5: Controlled Assessment of all revised GCSE Specifications (first teaching in September 2009).

#### When can teachers and candidates access the material?

Controlled Assessment tasks will be available from Interchange on 1 June of the year prior to an assessment series, i.e. 1 June 2009 for assessment in June 2010 series.

Tasks will be reviewed every 2 years and it is the responsibility of centres to make sure that candidates are submitting the correct task. Tasks will be taken off Interchange on 15 May every two years.

#### Can any preparation work be done out of the classroom?

Yes. Controls are set at the level of tasks setting, task taking and task marking. Preparation work comes into the task taking level, under Research and Data Collection, which have a limited level of control i.e. work can be carried out without direct supervision. More guidance on this can be found can be found in Section 5: Controlled Assessment of all revised GCSE Specifications (first teaching in September 2009).

#### Is there a minimum or maximum time that can be spent on the assessments?

Suggested time limits vary per subject: there are suggested time limits given in Section 5: Controlled Assessment of all revised GCSE Specifications (first teaching in September 2009).

#### Where can the Controlled materials be accessed and by whom?

Controlled Assessment tasks and other documents are accessed via Interchange.

Centre access to the Interchange Controlled Assessment area will be available to the registered Centre User (normally the Examinations Officer). However, the Centre User can set access permissions to others within their centre, eg HODs, subject leaders or subject teachers.

#### How long is each assessment valid for i.e can we use last year's assessment this year?

Tasks will be reviewed every two years and it is the responsibility of centres to make sure that candidates are submitting the correct task. Tasks will be taken off Interchange on 15 May every two years.

#### Where can the Mark Schemes be accessed?

Mark Schemes are included in the specifications and can also be accessed from the OCR website: Mark Schemes are attached at the end of each Sample Assessment Material.

#### Do we have to take the Controlled Assessment under exam conditions/teacher supervision?

Yes, but only for task taking, i.e. the last part of Controlled Assessment when candidates are producing their final piece of work – note that this can be over more than one supervised session. More guidance on this can be found in Section 5: Controlled Assessment of all revised GCSE Specifications (first teaching in September 2009).

#### Are the Controlled Assessments the same as written examinations, can we resit?

Yes, candidates can resit controlled assessed units but as with any other unit, candidates can only resit once. Also, the 40% terminal rule means that 40% of the assessment has to be taken in the examination series in which the qualification has to be awarded.

Centres have the responsibility to ensure that the correct tasks are used for a Controlled Assessment resit.

#### Are materials sent based on estimated entries or can we download them from Interchange ?

Tasks will only be available as downloads from Interchange: they will not be sent in hard copy to centres.

#### Do we mark them or do OCR ?

Controlled Assessment tasks for ALL subjects are internally marked by centres and externally moderated by OCR.

#### When do we start and finish the Controlled Assessment?

Controlled Assessment is a form of internal assessment and as such there isn't a specified date in which Controlled Assessment has to be taken. Tasks are available from Interchange from 1 June of the year prior to an assessment series.

It is up to the centre to decide when Controlled Assessment will be taken: guidance on this can be found in Section 5: Controlled Assessment of all revised GCSE Specifications (first teaching in September 2009).

#### Can I devise my own Tasks?

No. OCR has chosen a high level of control for task setting giving centres much more freedom to decide for themselves how candidates approach their work and centres manage facilities.

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Guide to Controlled Assessment in GCSE Design and Technology: Electronics and Control Systems

#### Is this a compulsory unit?

This unit is compulsory for a GCSE in Design and Technology: Electronic and Control Systems (J301). It is also one of two units that must be studied for a GCSE (Short course) in Design and Technology: Electronic and Control Systems (J041).

#### What is this unit worth?

This unit is worth 30% of the GCSE in Design and Technology: Electronic and Control Systems (J301) qualification and 60% of the GCSE (Short course) in Design and Technology: Electronic and Control Systems (J041)

#### What is the entry code for this unit?

The entry code for this unit is A511.

#### How is this unit assessed?

This unit is internally marked and externally moderated. Teachers should use the published marking criteria for Unit A511.

#### Will candidates be able to re-sit the unit?

Yes. Candidates may re-sit this unit once before entering for certification for a GCSE or GCSE (Short course).

#### Are the timings conducted by a stop watch?

No. The timings are recommended. Although OCR cannot monitor application, it is expected that candidates from a range of centres are given the same time exposure and opportunities as other candidates. It does however need to be flexible and accommodate candidate illness etc.

#### Is teaching time included in the 20 hour time allowance?

No, see OCR sample scheme of work for this unit to see how teaching can run alongside the Controlled Assessment and not be recorded.

#### Can staff still run after school workshops to make sure practical work is completed?

Skills can be developed after school however; the work must be completed in lesson time to make the assessment fair and equal.

#### Are candidates free to make what they want?

Candidates must select one of the published themes as a starting point. Once selected, the candidate needs to choose a specific product for design development.

#### Can all candidates from one centre work on the same theme?

Yes, but candidates need to identify their own brief, user group and how the product will be developed and the prototype manufactured

#### Can candidates develop the outcome from Unit A511 in Unit A513?

No. These are two separate units, each of which has its own theme list to select from.

#### Will the theme lists change each year?

No. Every two years the themes will be reviewed. Initially it is anticipated that extra themes will be added. Centres will always have two years notice of any change.

#### Can candidates work in teams to produce one product?

Yes, as long as work from each candidate is clearly identifiable and assessed appropriately.

#### Can candidates be entered for a short course in year 10?

Yes. The GCSE Short Course is both a 'stand alone' qualification and also the first half of the Full GCSE. Candidates would need to be entered for this unit and Unit A512 (Sustainable Design)

# Can candidates complete the whole portfolio on a power point and not print the design sheets saving on paper and ink?

Yes. Individual candidates are free to select the way in which they wish present their portfolio which can be in either be on paper or in a digital form. Hand sketching and design solutions are expected to form part of the range of design skills shown, and must be scanned into an electronic portfolio. It is expected that digital work will be sent to the moderator in an approved format, such as a CD / pen drive, or posted directly into OCR's digital repository. Photos of the finished prototype product (minimum 2 photos) should be included in paper and digital portfolios. A list of acceptable digital file formats is included in the specification.

#### Can the candidate handwrite the whole portfolio?

Yes, but the examination actively encourages the candidate to be confident and effective users of ICT. Where appropriate candidates should be given the opportunity to use ICT to further their experience of CAD CAM, data handling and word processing and digital presentation. These sheets can be printed and included in a paper portfolio.

#### Can the centre produce framework sheets for the candidates to complete?

These need to be limited in their use. They are very helpful for SEN and EAL candidates, but need to be used with caution for high achievers as 'filling in boxes' can limit their thinking and creativity.

#### To avoid a lot of writing can candidates use sound bites and video clips?

Yes, but they need to be focused, precise and relevant. This facility is only available to candidates producing a digital portfolio.

# In this unit, there is not much time to produce a quality outcome capable of testing. What are you expecting from candidates?

That candidates use a range of skills and processes to work skilfully and safely to shape, form and finish materials and assemble components.

# The specification refers to candidates producing a prototype in A511 and producing a product in A513. What is the difference?

A prototype might be used to demonstrate an understanding of the manufacture of a product, to test its effectiveness to a limited degree, might be made of materials that are less durable, easier to work, but otherwise similar to the product. Scale models are unlikely to satisfy these criteria.

#### Is there a limit to the number of photographs used in a portfolio?

No. Photographs are a very efficient and effective may of monitoring progress and showing the quality and success of the prototype product. It is recommended that photographs are used within the portfolio to show how the practical progresses throughout the various stages of construction and at the end of the process, to show details of the completed prototype product.

#### Do teaching staff still mark the candidates work?

Yes. It is still the responsibility of the centre to standardise the marks in the cohort and submit the marks to the board. A sample will be requested for moderation.

#### How does this sit with the timed activities?

The evidence must still represent 20 hours work. Certain sections may be replaced with better quality work.

#### Is there a text book for this unit?

Yes. The recommended text book is GCSE Design and Technology: Electronics and Control Systems published by Hodder. This book covers all four units of the GCSE in Design and Technology: Electronic and Control Systems (J301) qualification and the two units required for a GCSE (Short course) in Design and Technology: Electronic and Control Systems (J041).

#### Is there training available for this unit?

Yes. OCR provide a full programme of training for Design and Technology: Electronic and Control Systems (J301 and J041). Details are available on the OCR website.

#### Is this a compulsory unit?

This unit is compulsory for a GCSE in Design and Technology: Electronic and Control Systems (J301). It **cannot** be taken as part of the GCSE (Short course) in Design and Technology: Electronic and Control Systems (J041).

#### What is this unit worth?

This unit is worth 30% of the GCSE in Design and Technology: Electronic and Control Systems (J301) qualification.

#### What is the entry code for this unit?

The entry code for this unit is A513.

#### How is this unit assessed?

This unit is assessed by a 20 hour Controlled Assessment task.

# The assessment scheme refers to "response to a brief" but OCR provides a set of themes. What is the candidate's starting point?

The assessment will start from a simple brief. The teacher may choose to set a single brief or allow candidates to develop their own brief from the theme. This allows the teacher to adjust the exercise to local conditions, facilities, candidates' capabilities and time. Evolution of the brief is not part of the timed assessment.

#### What about research?

Local conditions will apply here: candidates may be asked to conduct their own research outside the timed assessment or the centre may provide research materials around a theme. Candidates will be assessed on developing a specification as a result of analysis; this must be his/her own work.

#### How many design ideas would be appropriate?

There can be no fixed answer to this question – it depends on the type and scale of the design exercise.

#### What is "a range" of appropriate strategies for communication?

This is an opportunity for candidates to demonstrate competence using various media and candidates will be rewarded for doing so. Discernment should be shown in using strategies that are appropriate and assist communication.

#### Is a written plan required?

No, a record of the key stages of making will be sufficient. However without some form of planning it is unlikely that a candidate will succeed in making a quality product. This plan can be a working, evolving document.

#### How many materials/processes should a candidate use?

There is no fixed number of materials or processes, but candidates should be encouraged to demonstrate skill and competence commensurate with the programme of study for this specification.

#### What are the limits of teacher intervention?

Teachers and support staff have a duty to ensure good Health and Safety practices. Work can be discussed but candidates must reach their own judgements and conclusions; staff cannot provide specific advice on improvements to meet assessment criteria. See Section 5.3.2 Feedback Control. If direct assistance is given this must be clearly recorded and not included within assessment.

# A candidate needs to test his/her work outside the controlled environment. Is this permissible?

There will be circumstances where testing is most appropriate outside the controlled environment. In this case the teacher must be satisfied that the work submitted is the candidate's own and be able to authenticate it using the specified procedure.

#### The sample Scheme of Work subdivides the 20 hour time allocation for this assessment. How closely can candidates be guided on use of time?

As with any Controlled Assessment, use of time is in the candidate's control. While the sample scheme intersperses assessment sessions with teaching sessions, candidates may choose to extend or contract the time on different sections as they see fit.

# 7 Guidance on downloading Controlled Assessment task from Interchange

## Before you start

Controlled Assessment materials will be available to download from OCR Interchange from June 2009.

In order to use Interchange for the first time, you just need to register your centre by returning the Interchange Agreement. This can be downloaded from the OCR website at <a href="http://www.ocr.org.uk/interchange">http://www.ocr.org.uk/interchange</a>

If your centre already has an Interchange user account, you will need to be assigned the 'Tutor / teacher' Interchange role to access Controlled Assessment materials. Your Interchange Centre Administrator can assign this for you.

Click on the following link https://interchange.ocr.org.uk

Enter your log in details

You can use Interchange to securely access cand qualifications, 24 hours a day. New features will be added over the coming mont for information.	
for information.	hs. Please check the <u>OCR website</u> and your email
Login	
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Forgotten Your Password	12
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# Step 2 – Navigate to Controlled Assessment materials area

Click on 'Coursework and tests'

Click on 'Controlled Assessment materials'

\*\* If you are unable to see either of these menu items then it is likely that you do not have the 'Tutor / teacher' role assigned to you.

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→ OCR Nationals		
→ Functional Skills		
→ Skills for Life		
→ NVQ		
→ Vocationally related		

# Step 3 – Search for materials

You can search for materials by unit code. Enter the unit code and click on the 'search' button.

Or, you can search for materials by subject information by selecting from the 'drop down' options.

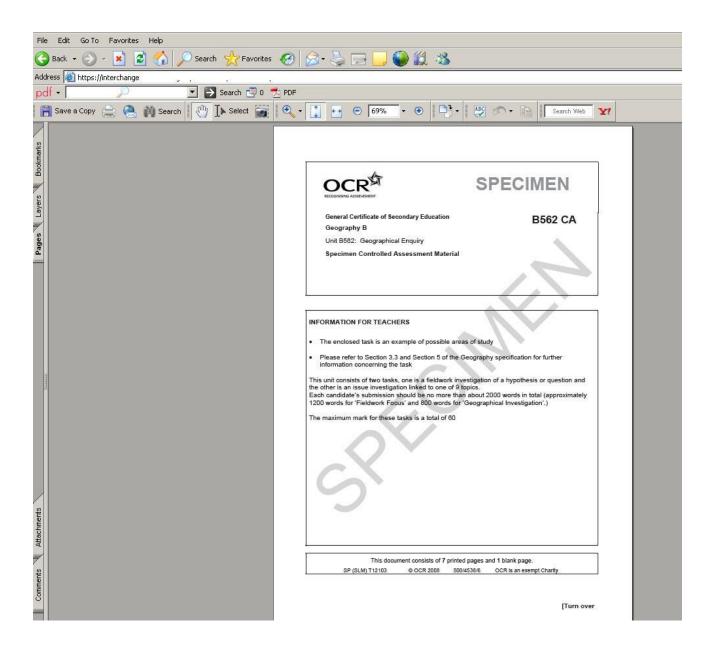
All available documents will be displayed below the search.

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Learning	A266 - Resource Booklet		(PDF 254KB)	
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Functional Skills				
Skills for Life				
* NVQ				
Vocationally related	Page notes			

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Click on the document link, the document will open in your browser

Click on 'Save As' to save to a location of your choice.



If you search for an invalid unit code, the following error message will be displayed.

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→ Assessors		Select Subject.	-Nothing to Select-
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→ GCE, GCSE, Principal Learning	Page notes		
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→ Functional Skills	If you use Windows 95, 98, 2000, ME, or NT, us	e a zip program such as WinZip or PKZip to ex	tract the files.
→ Skills for Life			
→ NVQ			
→ Vocationally related			
→ CLAiT and iPro			

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If you search for a valid unit code but there is no document currently available, the following message will be displayed.

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Vocationally related	If you use Windows 95, 98, 2000, ME, or NT, use a zip program such as WinZip or PKZip to extract the files.
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If you search via the 'drop down' menus but there is no document currently available, the following message will be displayed.

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→ OCR Nationals	
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→ Skills for Life	
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→ Vocationally related	Page notes
→ CLAiT and iPro	
	Windows XP and Windows Vista have a built in zip extractor. If you use Windows 95, 98, 2000, ME, or NT, use a zip program such as WinZip or PKZip to extract the files.

# 8 Guidance for the production of electronic Controlled Assessment

The materials produced for Controlled Assessment in Units A511 and A513 form a Controlled Assessment portfolio, stored electronically.

#### Structure for evidence

A Controlled Assessment portfolio is a collection of folders and files containing the candidate's evidence. Folders should be organised in a structured way so that the evidence can be accessed easily by a teacher or moderator. This structure is commonly known as a folder tree. It would be helpful if the location of particular evidence is made clear by naming each file and folder appropriately and by use of an index, called 'Home Page'.

There should be a top level folder detailing the candidate's centre number, candidate number, surname and forename, together with the Unit code, eg A511, so that the portfolio is clearly identified as the work of one candidate.

Each candidate produces evidence for the Controlled Assessment. The evidence for each element of the Controlled Assessment should be contained within a separate folder within the portfolio. Each of these folders is likely to contain separate files.

Each candidate's Controlled Assessment portfolio should be stored in a secure area on the centre network. Prior to submitting the Controlled Assessment portfolio to OCR, the centre should add a folder to the folder tree containing Controlled Assessment and summary forms.

#### Data formats for evidence

In order to minimise software and hardware compatibility issues, it will be necessary to save candidates' work using an appropriate file format.

Candidates must use formats appropriate to the evidence that they are providing and appropriate to viewing for assessment and moderation. Open file formats or proprietary formats for which a downloadable reader or player is available are acceptable. Where this is not available, the file format is not acceptable.

Electronic Controlled Assessment is designed to give candidates an opportunity to demonstrate what they know, understand and can do using current technology. Candidates do not gain marks for using more sophisticated formats or for using a range of formats.

Evidence submitted is likely to be in the form of word processed documents, PowerPoint presentations, digital photos and digital video.

To ensure compatibility, all files submitted must be in the formats listed below. Where new formats become available that might be acceptable, OCR will provide further guidance. OCR advises against changing the file format that the document was originally created in. It is the centre's responsibility to ensure that the electronic portfolios submitted for moderation are accessible to the moderator and fully represent the evidence available for each candidate.

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Accepted File Formats
Movie formats for digital video evidence
MPEG (*.mpg)
QuickTime movie (*.mov)
Macromedia Shockwave (*.aam)
Macromedia Shockwave (*.dcr)
Flash (*.swf)
Windows Media File (*.wmf)
MPEG Video Layer 4 (*.mp4)
Audio or sound formats
MPEG Audio Layer 3 (*.mp3)
Graphics formats including photographic evidence
JPEG (*.jpg)
Graphics file (*.pcx)
MS bitmap (*.bmp)
GIF images (*.gif)
Animation formats
Macromedia Flash (*.fla)
Structured markup formats
XML (*xml)
Text formats
PDF (.pdf)
Comma Separated Values (.csv)
Rich text format (.rtf)
Text document (.txt)
Microsoft Office suite
PowerPoint (.ppt)
Word (.doc)
Excel (.xls)
Visio (.vsd)
Project (.mpp)

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