

# Manufacturing

GCSE 2012
Manufacturing
Guide to Controlled
Assessment
J505/J510

Version 1 September 2012



# Contents

1	Introduction	3
	What does 'control' actually mean?	3
	What is the purpose of this Guide?	3
2	Summary of the Controlled Assessment units	5
	Unit B231 1A Study of a Manufactured Product and 1B Manufacturing a Product	5
	Unit B233 3A Real World Manufacturing and 3B Making a Manufactured Product	5
3	Teacher guidance on how to plan Controlled Assessment	6
	3.1 Controlled Assessment delivery flow chart	6
4	Controlled assessment in GCSE Manufacturing	7
	4.1 Controlled assessment tasks	7
	4.2 Planning and managing controlled assessment	8
	4.3 Marking and moderating controlled assessment	11
5	FAQs	13
6	Guidance on downloading Controlled Assessment task from Interch	nange 17
	Before you start	17
	Step 1 – Log into Interchange	18
	Step 2 – Navigate to Controlled Assessment materials area	19
	Step 3 – Search for materials	20
	Step 4 – Open materials	21
	Step 5 – Troubleshooting	22
7	Guidance for the production of electronic Controlled Assessment	25

Vertical black lines indicate a change to previous versions of this document. Changes can be found on pages 7 and 18.

# 1 Introduction

#### What is Controlled Assessment?

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 in the subject criteria and, depending on the subject, will be 25% or 60% of the total assessment.

In response to reforms announced by the Government and in response to Ofqual mandated changes to GCSEs, unitised assessment of this qualification is being replaced by linear assessment.

This means that candidates commencing a two year course from September 2012 will take all of their GCSE units at the end of the course in June 2014.

### 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.

## 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 B231 1A Study of a Manufactured Product and 1B Manufacturing a Product

This Controlled Assessment unit is divided into two sections (A and B) and both sections must be completed and entered for moderation at the same time. Candidates will investigate a variety of products detailed by OCR that have developed through the use of modern technology. Candidates will evidence their findings and conclusions using a portfolio, which may be presented electronically or in printed format.

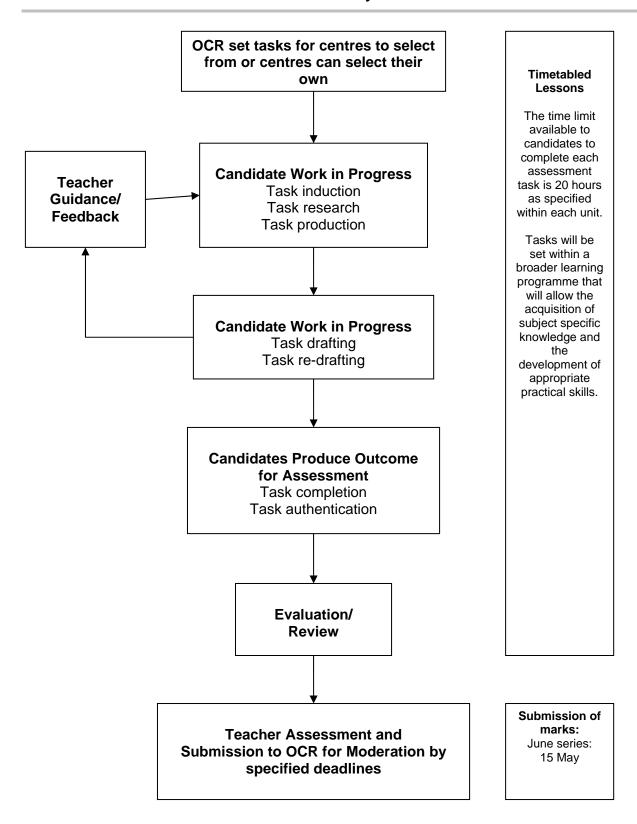
# Unit B233 3A Real World Manufacturing and 3B Making a Manufactured Product

This Controlled Assessment unit is divided into two sections (A and B) and both sections must be completed and entered for moderation. Candidates will study the manufacture of a product. The manufacture of the product could be observed through real life experiences such as industrial visits or work experience. Alternatively, the product could be researched using commercially or centre-produced resource materials. Candidates will evidence their findings and conclusions using a portfolio, which may be presented electronically or in printed format.

Units B231 parts 1A and 1B and B233 parts 3A and 3B have been designed to be internally assessed, applying the principles of Controlled Assessment. Controls are set within the assessments so that validity and reliability are ensured and the assessors can confidently authenticate the candidates' work. These controls take a variety of forms in each of the stages of the assessment process: task setting, task taking and task marking. Within each of these three stages there are different levels of control.

# 3 Teacher guidance on how to plan Controlled Assessment

### 3.1 Controlled Assessment delivery flow chart



# 4 Controlled assessment in GCSE Manufacturing

This section provides general guidance on controlled assessment: what controlled assessment tasks are, when and how they are available; how to plan and manage controlled assessment and what controls must be applied throughout the process. More support can be found on the OCR website: Guide to controlled assessment in Manufacturing

#### **Teaching and Learning**

Controlled assessment is designed to be an integral part of teaching and learning. Unit B231 parts 1A and 1B, and B233 parts 3A and 3B have been designed to be internally assessed, applying the principles of Controlled assessment. Controls are set within the assessments so that validity and reliability are ensured and the assessors can confidently authenticate the candidates' work. These controls take a variety of forms in each of the stages of the assessment process: task setting, task taking and task marking. Within each of these three stages there are different levels of control. This section sets out the overall OCR approach, but the Scheme of Assessment sections of the units include more detail and any specific requirements.

When all necessary teaching and learning has taken place and teachers feel that candidates are ready for assessment, candidates can be given the controlled assessment task.

#### 4.1 Controlled assessment tasks

All controlled assessment tasks are set by OCR.

Centres can choose one task from the lists provided by OCR (See Appendix B) which can be used with a minimum amount of adaptation. Alternatively, these tasks 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 that 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 the product on which a task is based.

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.

Controlled assessment tasks are available on Interchange from 1 June for the following examination series for certification in the following academic year.

Assessment tasks are reviewed every two years and amended where necessary. Guidance on how to access controlled assessment tasks from Interchange is available on the <a href="OCR website">OCR website</a>:

Centres must ensure that candidates undertake a task applicable to the correct year of the examination by checking carefully the examination dates of the tasks on Interchange.

### 4.2 Planning and managing controlled assessment

Controlled assessment tasks are available at an early stage to allow planning time. It is anticipated that candidates will spend about 20 hours of assessment for each unit B231 and B233. Candidates should be allowed sufficient time to complete all tasks.

Suggested steps and timings are included below, with guidance on regulatory controls at each step of the process. Teachers must ensure that the control requirements indicated below are met throughout the process.

#### 4.2.1 Preparation and research time

- Preparation (informal supervision)
- Informal supervision ensures that the work of the individual candidates is recorded accurately and that plagiarism does not take place. Assessable outcomes may be informed by group work, but must be an individual response.
- Introduction to the task (teacher led)

Teachers should apply appropriate time to explore choice of tasks, possible approaches and sources of evidence, time allocations, programmes of work and deadlines, methods of working, control requirements.

#### **Research (limited supervision)**

Limited supervision means that candidates can undertake this part of the process without direct teacher supervision and outside the centre as required. Candidates are also able to work in collaboration during this stage. However, when producing their final piece of work, candidates must complete and/or evidence all work individually.

Research/collection of evidence

During the research phase candidates can be given support and guidance.

- Teachers can
  - explain the task
  - advise on how the task could be approached
  - o advise on resources

o alert the candidate to key things that must be included in the final piece of work.

#### • Teachers must not

- o comment on or correct the work
- o practise the task with the candidates
- o provide templates, model answers or feedback on drafts

Research material can include fieldwork, internet- or paper-based research, questionnaires, audio and video files etc. 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.

#### 4.2.2 Producing the final piece of work

#### Producing final piece of work (formal supervision)

Formal supervision means under direct teacher supervision: teachers must be able to authenticate the work and there must be acknowledgement and referencing of any sources used. If writing up is carried out over several sessions, work must be collected in between sessions.

- The final piece of work should be indexed and include headings that identify materials
  presented by the candidate. Footnotes, figures, tables, diagrams, charts and appendices
  should be included where appropriate.
- When supervising tasks, teachers are expected to:
  - 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;
  - o 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.

Candidates must work independently to produce their own final piece of work.

### 4.2.3 Presentation of the final piece of work

Candidates must observe the following procedures when producing their final piece of work for the controlled assessment tasks:

- 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:
  - o centre number
  - o centre name
  - o candidate name

- o candidate number
- o unit code and title
- o assignment title

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

### 4.3 Marking and moderating controlled assessment

All controlled assessment units are marked by the centre assessor(s) using OCR marking criteria and guidance and are moderated by the OCR-appointed moderator. External moderation is either e-moderation where evidence in a digital format is supplied or postal moderation.

#### 4.3.1 Applying the marking criteria

The starting point for marking the tasks is the marking criteria (see section 4.3.4 *Marking criteria for controlled assessments* below). The criteria identify levels of performance for 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 should be looking for when awarding marks.

### 4.3.2 Use of 'best fit' approach to marking criteria

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

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 band descriptor that best describes the work of the candidate.

To select the most appropriate mark within the band 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.

Teachers should use the full range of marks available to them and award *full* marks in any band for work which meets that descriptor. This is work which 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 which, in most respects, meets the statement and work which 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 the controlled assessment unit is out of a total of 90 and is found by totalling the marks for each of the marking objective/criteria strands.

There should be sufficient evidence that work has been attempted and some work produced. If a candidate submits **no** work for the internally assessed units, then the candidate should be indicated as being absent from that unit. If a candidate completes **any** work for an internally assessed unit, then the work should be assessed according to the marking criteria and the appropriate mark, including zero marks, awarded.

#### 4.3.3 Annotation of candidates' work

Each piece of internally assessed work should show how the marks have been awarded in relation to the marking criteria.

The writing of comments on candidates' work and cover sheet provides a means of communication between teachers during the internal standardisation and with the moderator if the work forms part of the moderation sample.

# 5 FAQs

When can controlled assessment tasks be undertaken by learners?

Controlled assessment tasks may still be undertaken at any point between release of the task by OCR and the examination series for which the task must be submitted. Each controlled assessment task will be valid for submission in a single examination series only. Centres must ensure that candidates undertake a task that is valid for submission in the year in which the candidate intends to submit it.

The series in which each task can be submitted will be clearly marked on the front cover of each task. Tasks will not be valid for submission in any examination series other than that indicated.

Tasks for the controlled assessment will be made available on OCR Interchange, ahead of the examination series for which the tasks are to be submitted. These will be removed upon expiry. Guidance on how to access controlled assessment tasks from OCR Interchange is available on the OCR website: www.ocr.org.uk.

Can a candidate carry forwards controlled assessment results if they are retaking the qualification?

Yes they can.

#### 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 4: Controlled Assessment of revised GCSE Specifications (first teaching in September 2012).

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

Controlled Assessment tasks is available on OCR Interchange (ocr.org.uk/interchange Tasks will be reviewed every two years. It is the responsibility of centres to make sure that candidates are submitting tasks from the approved list.

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

Mark Schemes are included in the specifications and can also be accessed from the OCR website:

#### Do we have to take the controlled assessment under 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 can be found in Section 4: Controlled Assessment of all revised GCSE Specifications.

#### Will candidates be able to re-enter units?

Yes. Control assessment units can be carried forward with the moderator mark from one session to the next i.e. June 2014 to June 2015. There is a separate 'carry over' code to re-enter the unit.

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

Tasks will only be available as downloads from Interchange: they will not be sent 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.

#### Can I make anything I like?

No, you have to respond to one of the given Customer Design Briefs provided by OCR.

#### Can I make what someone else has designed?

No. You have to come up with the idea or solution yourself.

#### Can I submit part 1A of this unit at a different time to part 1B?

No, you have to submit them both at the same time.

#### Can I link part 1A of this unit to part 1B of this unit?

Yes. But it will depend on the product you look at for part 1A and the customer brief you select in Part 1B.

#### Can I do work at home for this unit?

All the work you **submit for assessment** has to be under "Controlled Conditions". This means your teacher should supervise you for all submit work for assessment. There is nothing to stop you practising at home and improving your skills so that when you do them with your teacher they are the best you can possibly achieve.

#### Can I take as long as I like making something?

No, there is a time limit to your Controlled Assessment for this unit and it is suggested that you spend about six hours on part 1A and 14 on part 1B

#### Can I do work at home as part of my assessment?

No homework is great but only to support your learning. It cannot be submitted as evidence for your assessment.

#### Can I work as part of a team and make something jointly with my friend.

You must have your own folio containing your own evidence of designing, making and evaluation for the work you submit for assessment.

Your teacher may allow you to undertake group work or work in pairs during your course on work which is **not** submitted for assessment.

#### Will I be under assessment conditions every lesson?

Each task should be completed in approximately 20 hours, although this can be spread over a period of time.

Candidates should spend 6 hours on part A and 14 hours on part B for both B231 and B233.

#### Can I get help from my parents?

Yes. You can always ask your parents to explain and show you things **but** the work you submit for assessment must be all your own.

#### Can my assessment be done using ICT?

Yes. There are several ways you can do this and your teacher will explain them all to you.

#### Can I share work with other people?

Sharing when you are learning is really important and a brilliant thing to do. You can explain things to others and also learn from them **but** you cannot share anything when you are doing your controlled assessment. Your designing, evidence of your making and your evaluation in it has to be your very own work.

#### What if someone copies my work?

You need to be very careful about letting anyone copy your work. It can be difficult to decide who's work is the original work and both of you could be penalised.

#### Will I have chance to practise things before I do my designing and making?

Yes. The "Controlled Assessment" is only a small part of your Manufacturing course. You will be given lots of new information, shown new skills and be able to practise them before you start your folio.

#### I'm doing the Single Award GCSE Manufacturing Liner 2012 - can I do B231 and B234?

No. If you are just doing the single award you must do B231and B232.

#### I am doing Engineering and Manufacturing can I submit the same work for both.

No. Apart from B231 1A, all the units are different, the work would not be suitable for assessment for a different qualification. You are not allowed to submit it for two different qualifications.

If you do the first unit A621 1A and A621 1B Engineering and B231 1A and B231 1B Manufacturing you **must** choose different products and customer briefs.

#### What does "Plagiarism" mean?

Plagiarism is when work is copied from someone else or from another source for example the internet. If you submit work which has been plagiarised you could get disqualified from the Manufacturing examination completely. In serious cases you could be disqualified from **all** of your GCSE examinations.

# If I needed some welding done and my school does not have the facilities can I get it done elsewhere?

Yes. This often happens **but** you must declare this very clearly in your portfolio giving full details of what has been done and by whom. You cannot be given credit for the welding (or any other process in similar circumstances) and must not expect it. But it may enable you to get the other parts of your making completed.

#### I am not very good at finishing things off. Will I fail if my product is not finished?

No. Not necessarily. You will gain some credit but you will obviously not gain as many marks for incomplete work.

#### What happens if I am ill and cannot complete my course?

If you are seriously ill and have a doctor's note the examination boards have different procedures to take this into account and you could still get your qualification. But if you just miss time from school or don't turn up to lessons that will not count and you will lose out.

#### What happens if I change schools during my course?

Your work can be submitted by your new school even if they do not teach OCR Manufacturing. You will need to make sure that your new school knows the details of the specification you have been studying and that they have proof that all the work is your own. Your teacher from your old school would normally send your work to your new school with a covering note.

# 6 Guidance on downloading Controlled Assessment task from Interchange

### Before you start

Controlled Assessment materials will be available to download from OCR Interchange from June 2012.

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.

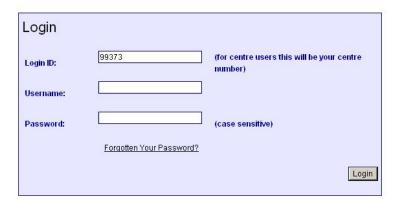
# Step 1 – Log into Interchange

Click on the following link <a href="https://interchange.ocr.org.uk">https://interchange.ocr.org.uk</a>

Enter your log in details



New features will be added over the coming months. Please check the <u>OCR website</u> and your email for information.



#### New User

To sign up please complete and return the OCR Interchange Agreement (118kb) to receive your login details.

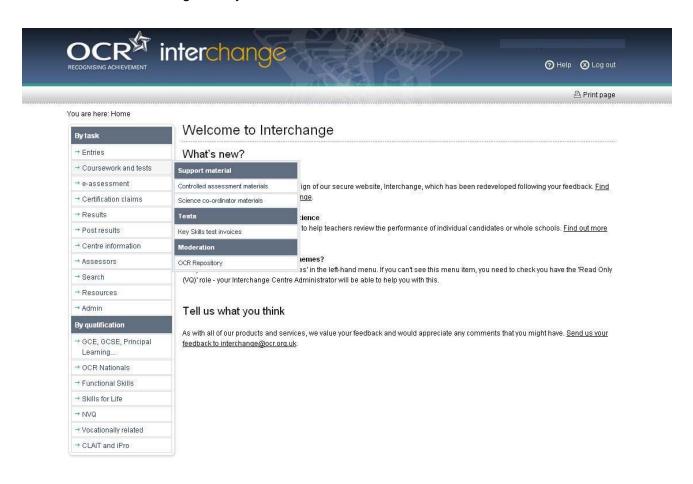
Sign Up

# 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.

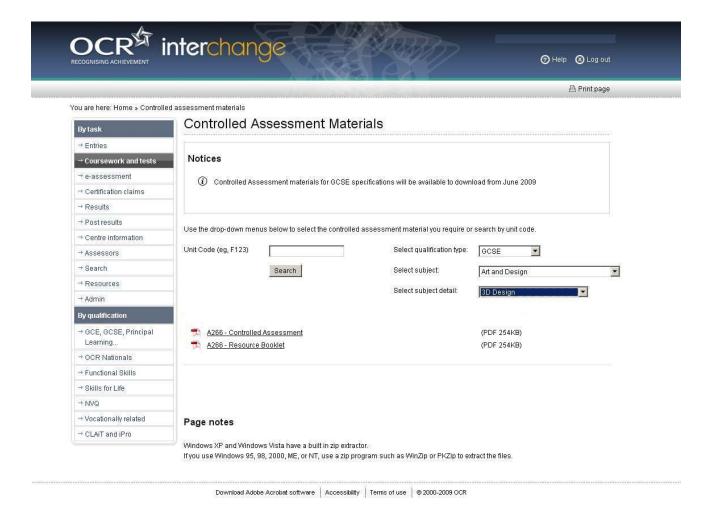


## Step 3 – Search for materials

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.

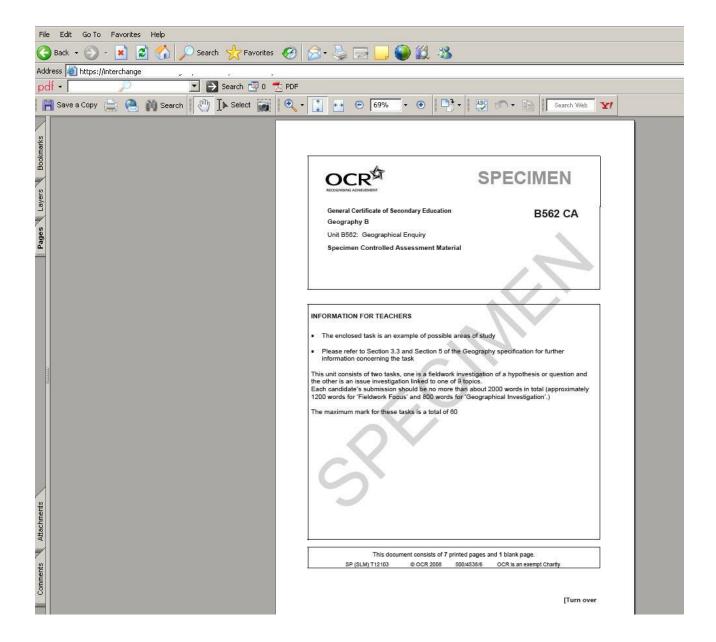
All available documents will be displayed below the search.



# Step 4 – Open materials

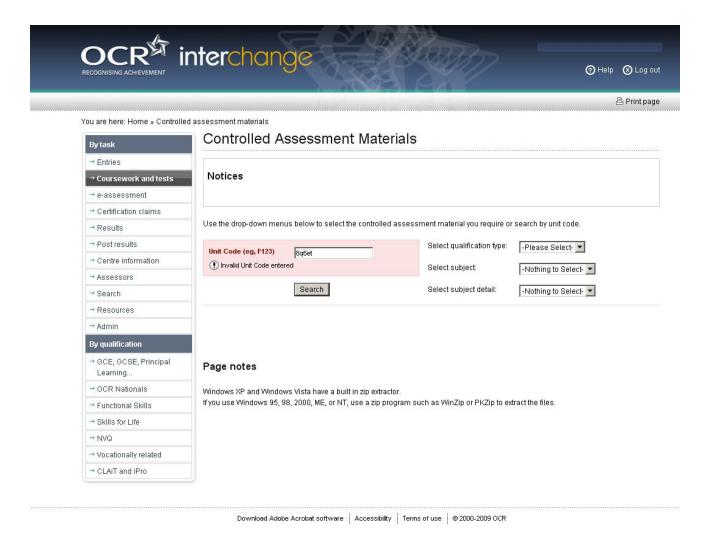
Click on the document link, the document will open in your browser

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

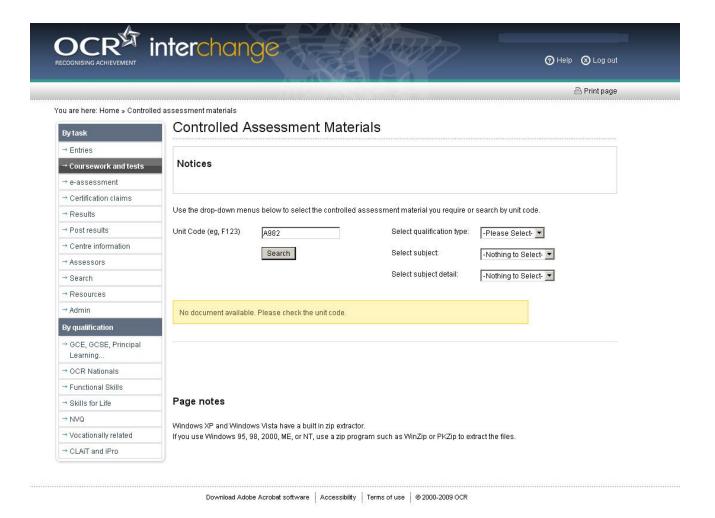


# Step 5 - Troubleshooting

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

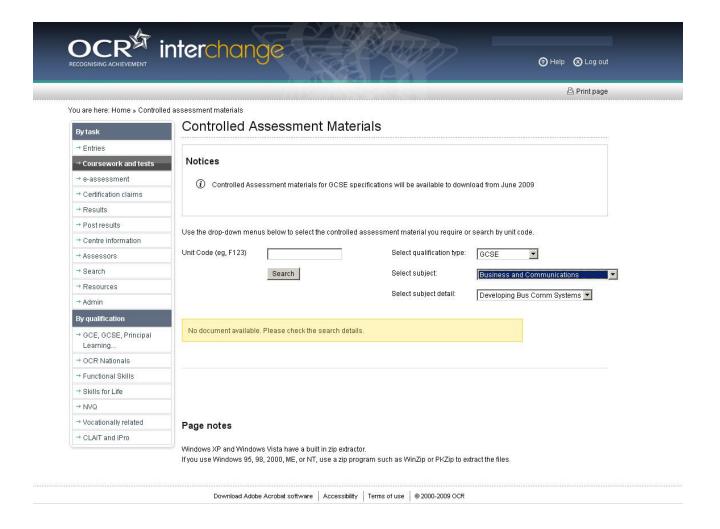


If you search for a valid unit code but there is no document currently available, the following message will be displayed.



© OCR 2009
Guide to Controlled Assessment in GCSE Manufacturing

If you search via the 'drop down' menus but there is no document currently available, the following message will be displayed.



# 7 Guidance for the production of electronic Controlled Assessment

The materials produced for Controlled Assessment in Units B231 and B233 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 (B231 or B233), 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 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.

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)

### www.ocr.org.uk/gcse2012

## Contact us

Keep up to date with the latest news by registering to receive e-alerts at www.ocr.org.uk/updates

Telephone 01223 553998 Facsimile 01223 552627 Email general.qualifications@ocr.org.uk



