



**GCSE DESIGN AND TECHNOLOGY:
RESISTANT MATERIALS TECHNOLOGY
(4562)**

**CONTROLLED ASSESSMENT TASKS AND
GUIDANCE**

2009

AQA GCSE Resistant Materials Technology Controlled Assessment Tasks

The following are the AQA set tasks for the GCSE Design and Technology: Resistant Materials Technology specification. One of these tasks should be chosen when doing the controlled assessment unit. In each case a context is provided.

CONTEXT



Leisure activities are increasing in popularity. Many garden centres and department stores now have areas specifically targeting this consumer area.

Design Task 1

A garden centre wishes to sell products to encourage wildlife into domestic gardens. Design and make a small product that could be sold in the garden centre.

Design Task 2

The growth in leisure activities has been reflected in the availability of products to help with outdoor living. Whether this is camping or simply having a barbecue, the range of products is enormous. Design and make a product suitable for the "Outdoor Living" section of a large department store.

Design task 3

Sporting and musical activities are very popular. Many need specialised equipment. Design and make an accessory or product for a sport or musical activity of your choice.

CONTEXT



Designers have a responsibility to design products that demonstrate an awareness of environmental issues. Be inspired by the following word bank – Designing for sustainability, re-used and recycled materials and components, sustainable materials, energy efficient devices.

Design Task 4

'Eco Jewel' is a company which supplies jewellery to people wishing to demonstrate their support for the environment. You have been asked to design a range of jewellery using Eco as an inspirational theme. Make up at least one item from your range. You are to design for manufacturing in quantity.

Design Task 5

A shop specialising in sustainable products wishes to extend its range. Design and make a product which could be sold in the store.

Design Task 6

A new company is looking to manufacture products from waste materials from other industries. They have already sourced waste plywood from the printing and building industries. Design and make an example of a product that could be made from these materials or from other waste materials from industry.

CONTEXT



Popular tourist attractions such as Wildlife Sanctuaries, Art Galleries, Animal Farms, Zoos, Theme Parks and Museums often have their own Shops attached. Themed products are always a popular feature.

Design Task 7

A major design museum wishes to expand its range of products on sale in the museum shop. It wishes to sell popular products influenced by major design eras of the last 100 years. Design and make a low-voltage light, radio, phone charging stand or ipod docking station in the style of any design era of the last 100 years. You can use bought-in, or recycled components for the electronics e.g. TEP radio kits.

Design Task 8

Design and make a small storage unit influenced by any design era of the last 100 years

Design Task 9

A major tourist attraction wishes to include themed, quality children's toys aimed at the 3 to 5 age range. Design and make a themed toy that incorporates moving parts or removable parts to add interest

CONTEXT



Our lifestyles are changing rapidly. Our homes contain an ever-increasing range of gadgets and equipment. It is fashionable to have multi-functional living spaces. We need creative, innovative products to help us organise our lives.

Design Task 10

People have an increasing number of gadgets and gizmos in their homes, such as mobile phones, ipods, remote controls, hand held computer games etc. Many of these products need chargers, memory cards, games etc. Design and make a gadget tidy.

Design Task 11

A major high street retailer wishes to market a multi purpose, modern style, small coffee table aimed at the first time buyer. The product could include some storage space. Design and make a coffee table for this target market.

Design Task 12

A manufacturer of classic games has recognised a gap in the market for a device that allows you to play games and store the parts in the same unit. The device could be used sitting at home, or on the move, e.g. in a car, plane or train. Design and make a playing surface / storage unit for playing games at home or on the move. Consider using CAD/CAM equipment and consider designing the product so that it can be flat-packed.

Guidance for GCSE Design and Technology Controlled Assessment

Tasks for assessment in May 2011 and 2012 (submission dates)

The Controlled Assessment unit in the new GCSE Design and Technology specifications is a form of internal assessment where the control levels for each stage of the assessment process (task setting, task taking and task marking) have been defined by QCA and are requirements for all awarding bodies. This guidance for teachers following the AQA specification is intended to enable you to interpret the controls that have been specified.

Task setting

Level of control: High

A list of Controlled Assessment tasks will be sent to each centre in the spring term 2009. These tasks will also be published on the e-AQA secure website. The tasks will relate to the following academic years:

- 2009/10 (although Controlled Assessment tasks cannot be submitted for assessment in this first year of the specification)
- 2010/11 (certification in 2011)
- 2011/12 (certification in 2012)

The design and make activity completed by each candidate must be chosen from the list of Controlled Assessment tasks referred to above. Tasks included in this list can be submitted for assessment only in the academic year to which they relate and no other tasks can be submitted for assessment in the years given above.

Centres are permitted to contextualise the task(s) to best suit their centre specific circumstances, which will enable centres to consider such factors as the availability and access to resources. In such circumstances centres should first contact their Controlled Assessment Adviser and provide details as to why it is felt the task needs to be contextualised. Advice on this matter from the Controlled Assessment Adviser should be obtained in writing and should be submitted together with candidates' work during the moderation period.

The tasks will be reviewed every two years. The first review will take place in the autumn term of 2011, where a decision will be taken as to which tasks should be included on the list for the following two academic years, i.e. 2012/13 and 2013/14. AQA will look at each task and assess its suitability in terms of popularity, fitness for purpose, etc and decide which tasks, if any, should be withdrawn from the list, which should be amended and which new tasks should be added to the list. The revised list of tasks will be published during the spring term in 2012.

Task taking

Level of control: Medium

Controls in relation to the taking of the task can be specified in a number of areas.

Authentication

It is essential that teachers are able to confirm that the work submitted by each candidate is their own unaided work. To ensure that this can be done, all work, with the exception of research, must be completed under **informal supervision**.

Informal supervision means that teachers must ensure

- that, in cases of collaborative work, the contributions of individual candidates are recorded accurately,
- that plagiarism does not take place,
- that work can be authenticated as the candidate's own, and
- that sources used by candidates are clearly recorded and acknowledged.

In practice, what does this mean? Candidates do not need to be under the direct supervision of teaching staff at all times, but it is expected that the majority of work undertaken by the candidate and which is submitted for assessment will be carried out in the classroom/workshop. This is so that the teacher is able to state with confidence that the work that is being submitted by the candidate has not been plagiarised or downloaded from an internet site.

It may be the case that the candidate needs to complete some work outside the classroom environment (for example, as part of a homework task). This is acceptable provided that the teacher has supervised the candidate in carrying out a significant proportion of this work in the classroom and is happy that the quality of work subsequently submitted is of an identical standard as that seen in the classroom. In short, it is the responsibility of the teacher to be able to authenticate that the work submitted is solely that of the candidate concerned.

There may be instances where candidates wish to word process parts of their design folder but resources within the centre do not permit a whole class to do this. Provided that the teacher has supervised the candidate whilst they have drafted their work in class, it would be acceptable for this candidate to word process the work outside the classroom environment. The draft version would need to be submitted together with the word processed version and it would be the responsibility of the teacher to authenticate that the work submitted for assessment (word processed version) is in line with the work carried out in class.

It is expected that the majority of the making should be carried out within the classroom/workshop. On occasion, when making is carried out away from the classroom/workshop, this must be clearly documented by the teacher on the Candidate Record Form. There may be occasions when circumstances require that some of the making cannot be carried out in the classroom/workshop. For example, a candidate may run out of time in a lesson and wish to finish off some decorative work on a textile product. Provided that the teacher has supervised the majority of the work carried out in the classroom, it is permissible for the candidate to take this work home in order to complete the task. The teacher will then, of course, need to inspect the product to ensure that the quality of making carried out at home is consistent with the quality of making seen in the classroom. Clearly, it is not permissible for a candidate to carry out a significant part of the making activity outside of the classroom as this would not allow the teacher to authenticate this work.

There may also be occasions when a candidate has not completed all aspects of making when producing a product; for example, where health and safety issues require that certain tasks are performed by a technician. Where this is the case or, indeed, in any instance where there has been some third party assistance in the manufacture of the product, this must be clearly documented on the Candidate Record Form and, of course, ***the candidate cannot be credited for work that they themselves have not done.***

If a teacher has any doubts about the authenticity of work that has been completed at home they may choose to ask the candidate to complete the same work again in the classroom or question the candidate about the content/nature of the work undertaken.

Research, which may also include practical research, may be completed under **limited supervision**. This means that, whilst candidates can carry out research at home (using the internet, etc) any material collected or produced as a consequence will not contribute directly to assessable outcomes. The candidate could gather the necessary research material related to a particular project and then analyse this research under informal supervision conditions. It is this analysis and selection of suitable research material, ***completed under informal supervision***, which will count towards the candidate's assessable outcome. For the new specification we are keen to ensure that candidates avoid the temptation to include significant amounts of unnecessary research material and, instead, seek to encourage them to be more focussed in their selection of relevant research.

Feedback to candidates

Candidates are free to revise and redraft a piece of work before submitting the final piece. Teachers can review draft work and provide **generic advice** to ensure that the work is appropriately focussed and, whilst candidates may be guided as to the approach they may wish to adopt, the outcome must remain their own. The advice can be provided in either oral or written form and can be used to evaluate progress to date and propose suggested **broad** areas for improvement. It is **not** permissible to provide advice on **specific** improvements to meet the criteria, give detailed feedback on errors or omissions, or to indicate how **specific** improvements to presentation or content can be made.

A clear distinction must be drawn between providing feedback to candidates as part of work in progress and reviewing work once it has been submitted by the candidate for final assessment. Once work is submitted for final assessment it may not be revised. Having reviewed a piece of work that has been submitted for final assessment, therefore, it is not acceptable for teachers to give, either to individual candidates or to groups, detailed advice and suggestions as to how the work may be improved in order to meet the assessment criteria.

Any support or feedback given to individual candidates **which has not been provided to the class as a whole** must be clearly recorded on the Candidate Record Forms.

Time limits

It is recommended that candidates should spend approximately 45 hours on their controlled assessment task. It is not expected that this time should be monitored or recorded by teachers but candidates should be encouraged not to exceed this approximate time allocation. Centres should be aware that Criterion 5 of the Controlled Assessment Criteria rewards those candidates that have produced a 'focussed, concise and relevant' design folder and have demonstrated 'an appropriate selection of material for inclusion'. It is expected, therefore, that candidates will be selective in their choice of material to include in their design folder and will be mindful of the approximate time allocated to this design and make task and manage this time appropriately.

Working with others

Whilst working with others should be encouraged wherever possible, it is the responsibility of the teacher to ensure that the work of each individual candidate that may have worked as part of a group is their own unaided work and can be assessed as such.

Use of resources

Candidates are permitted to use those resources as provided by the centre. If there are any candidates that require the use of any special equipment the Examinations Officer should contact AQA's Exam's Office Support for guidance.

Task marking

Level of control: Medium

Teachers should mark the Controlled Assessment using the assessment criteria provided in the AQA specification.

AQA will carry out moderation of this work in accordance with QCA Code of Practice requirements.

Exemplar material will be provided to centres as part of AQA's ongoing commitment to provide support in this area. Clearly, once teaching of the specification is underway, the availability of additional exemplar material will become more frequent.