

ADVANCED SUBSIDIARY GCE
DESIGN AND TECHNOLOGY
Advanced Innovation Challenge

F521/01

SESSION 1 AND 2 – PRACTICAL ASSIGNMENT

Candidates answer on the question paper.

OCR supplied materials:
None

Other materials required:

- Modelling materials and equipment

Thursday 9 December 2010

All day

Duration: 6 hours



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. All work should be completed on the workbook. **Additional paper will not be marked.**
- You will have a total of 6 hours to complete this part of the examination. There will normally be two 3 hour sessions.

INFORMATION FOR CANDIDATES

- At the end of the examination you must have:
 - selected **one** of the design challenges detailed with this paper;
 - completed the answer booklet showing your creative thinking and how your idea works;
 - produced a model/prototype to show the important features of your design;
 - have at least three photographs fixed in your answer booklet showing your modelling activities.
- The total number of marks for this paper is **60**.
- This document consists of **22** pages. Any blank pages are indicated.

Your answer booklet will be collected at the end of session 1 and 2 and reissued when you sit session 3 the reflection test.

Examiner's Use Only:	
Paper 1	
Paper 2	
Total	

Public spaces

Public spaces can help promote social interaction and a sense of community. A well-designed and managed public space can be an integral part of the character, economic attractiveness and uniqueness of a place.

You have been approached as a designer to address **one** of the Design Challenges. This will help to develop a range of **innovative** products that will be suitable for use in a public space.

Design Challenge One

A large public library wants to install a sculpture in their entrance. They wish the piece to create interest and become a focal point.

- The product should incorporate movement or be interactive.

Design Challenge Two

There is often limited seating in outdoor public spaces. There is a need for a product that can provide permanent seating yet be sensitive to the surroundings.

- The product should be suitable for a minimum of two people.

Design Challenge Three

Many people consume cold refreshments when out and about. There is a need for nutritious cold refreshment that is sustainably packaged.

- The packaging will need to allow for ease of disposal and recycling at a later stage.

Design Challenge Four

Many people get bored in waiting rooms. There is a need for a product that can provide entertainment and/or interaction between the public.

- The product should provide a focal point that can help bring the community together.

Design Challenge Five

A local council is developing a new eco friendly outdoor public space. There is a need for a product that can be given away to the public on the opening day to create interest.

- The product should raise awareness of sustainability and eco design.

Design Challenge Six

In public spaces, chewing gum and cigarette butts are often left as litter. There is a need for a product that will encourage people to dispose of these items safely.

- The product should be sensitive to the surroundings.

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Session 1

- 1 Explore the chosen Design Challenge. What are your initial thoughts?

Use sketches and notes to communicate your thinking.

- 2 Which of your initial thoughts offers greatest potential to be taken further? Why?

Additional space

Boxes 3, 4 and 5 are at the end of this booklet on the fold-out page

- 6 Start designing. Use annotated sketches and/or models to show your ideas. You may wish to use annotated photographs to communicate modelling.

Ideas continued.

7 What do you think of your ideas so far, how has your job bag helped to inspire/direct your ideas? Use annotated sketches and/or annotated photographs to explain.

8 Which is your best idea? Justify your decision.

9 Reflect and Record

You will be asked to present your ideas (no more than 5 minutes).

Use this space to plan what you will say. Think about your brief, specification and key factors of your design.

10 Feedback

Record any suggestions made by others. Identify further modifications that you could make in response to this feedback.

11 Developing your idea, improvements and modifications

Use annotated sketches and/or annotated photographs to communicate your thoughts.

12 Your Model

List the materials/ingredients you have chosen to make your prototype.

Component description	Material/Ingredient

Show how these components could be joined/combined together.

13 Action Plan for Session 2

Session 2

14 Review

Record any new thoughts about your design. Use annotated sketches and/or notes.

15 Modelling – Test, develop and refine your design proposal.

Progress Report 1

Problems you have come up against so far. What are the possible solutions?

16 Continue Modelling. You have 40 minutes modelling time.

Progress Report 2

Did your solutions work? Why?

Which areas of modelling have been most successful so far?

17 Planning. Plan what you will be doing/making during the final modelling activity.

18 Evaluation of Developed Design Proposal

Describe the effectiveness of your developed design proposal and how it meets the needs of the original Design Challenge. Evaluate your final proposal against your specification, you may use annotated sketches and/or annotated photographs.