2028L029C2ES

Coimisiún na Scrúduithe Stáit

State Examinations Commission

Leaving Certificate Examination
Sample Brief

Construction Technology

Exploring the Constructed Environment

Higher Level and Ordinary Level

180 marks

1. Information for candidates, teachers and school authority

The assessment of Leaving Certificate Construction Technology comprises three components:

1. Final Written Examination
2. Exploring the Constructed Environment
3. Craft Skills Assessment.

The Exploring the Constructed Environment component is worth 180 marks, representing 30% of the overall marks for Leaving Certificate Construction Technology. The remaining 420 marks are allocated to the Craft Skills Assessment (120 marks) and the Final Written Examination (300 marks).

Coursework must be completed in full and strict compliance with the procedures and conditions outlined in this coursework brief and in the State Examinations Commission (SEC) Coursework Rules and Procedures.

The authentication process

The authentication process is put in place by the SEC to ensure **the integrity of the examination process** and to ensure **fairness and inter-candidate equity**. The candidate, class teacher, and school authority all have a responsibility to ensure that the ongoing preparation of coursework and that the work ultimately submitted to the SEC is the candidate's own individual authentic work. The SEC Coursework Rules and Procedures contains comprehensive information on the authentication process that must be read and adhered to.

It is fully expected that candidates will carry out research as part of their coursework. To fully comply with these SEC Coursework Rules and Procedures, candidates must reference and acknowledge their research sources, including any use of AI, as outlined in **Appendices 1 and 2** of the SEC Coursework Rules and Procedures. To include material that is not created by the candidate and not properly referenced will be considered plagiarism. This is considered cheating. This is a breach of regulations and will be investigated by the SEC - see **Section 18** of the SEC Coursework Rules and Procedures. It is the responsibility of the candidate, the class teacher, and the school authority to ensure that the work being presented to the SEC is the candidate's individual authentic work.

This brief contains the subject specific information and requirements for the completion of the Exploring the Constructed Environment component.

Note: The Construction Technology teacher should ensure that a printed image of the final physical artefact being submitted for assessment is included in the design folio.

Storage of Coursework

On completion of the coursework, school authorities should ensure that the finished artefact and design folio are kept in a secure place until the examining process (including appeals) has concluded.

2. Instructions to Candidates

1. The completed coursework submitted for assessment must consist of two items:

    - a **design folio** *and*
    - an **artefact**.

2. It is your responsibility, as the candidate, to comply with these instructions. If you fail to comply with these instructions, your teacher will not be able to validate and sign off on your coursework and you will not receive any marks for such coursework.

3. The artefact you submit for assessment must be your own unique, individual authentic work and must be completed in school under the supervision of your teacher.

4. Your artefact must not be removed from the school under any circumstances as doing so may result in such coursework being considered invalid.

5. You must finalise the authentication process to confirm that the coursework you are submitting is your own unique, individual authentic work by signing the SEC Authentication Form P.2. This will be provided by your class teacher. Your class teacher and school principal will also sign this form to confirm that you adhered to the authentication process. If your coursework cannot be validated, you will not receive any marks for the coursework component.

6. Your design folio should consist of a maximum of 16 single sided A4 pages in total. Your folio can be presented in A4, A3, or a combination of both formats. Each A3 page presented, equals two A4 pages. If material is presented in excess of the prescribed page count you may lose marks.
   Note: The cover page and reference page are not included in the page count.

7. You must submit your original sketches in your design folio.

8. The level at which the written examination is taken, determines the level at which the coursework is assessed.

9. Where there are clear similarities between your coursework and that of another candidate, whether in the artefact or in the design folio, you may not receive any marks for such coursework.

10. All coursework submitted for assessment must be clearly identified with your examination number.

11. In order to comply with instruction 5 above, you must select coursework that can be completed within the supervised time available in the school and using only the equipment and materials available in the school. You must agree the coursework with your teacher before commencing work.

12. To authenticate your own unique, individual work, where computer aided manufacture (CAM) processes are used (e.g. Laser cutting, 3D printing), each individual piece must be supported by the inclusion of a clear, appropriate CAD drawing, identified with your examination number.

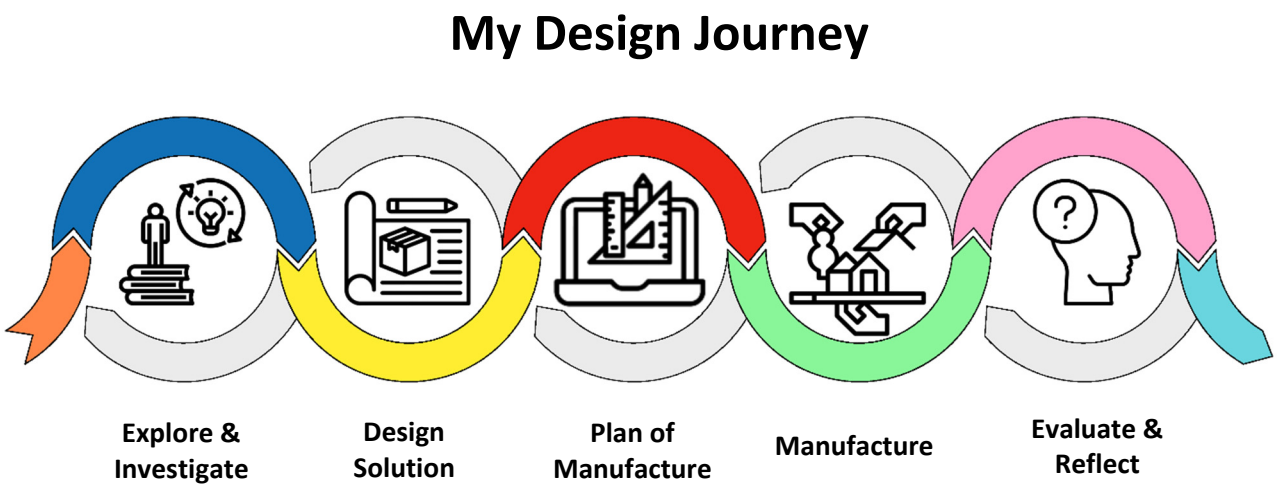
13. You must reference and acknowledge all research sources used such as: publications including books, professional journals and government reports; online sources and other types of media; any material generated using artificial intelligence (AI) software or applications; and material from specialist organisations and relevant individuals. To include such material without properly referencing the source will be considered plagiarism. In addition, the copying from, or reproduction of, material from such sources may also be considered plagiarism.

14. Any case of suspected copying, plagiarism (which includes the use of AI software), improper assistance, or procurement of work prepared by another party will be thoroughly investigated.

3. Engaging with the Exploring the Constructed Environment Coursework

The brief for the Exploring the Constructed Environment component provides an opportunity for you to display evidence of learning across all strands of the senior cycle Construction Technology specification. Completing the coursework should involve the five stages outlined below and it is envisaged that it will take up to 35 hours to complete.

The 'My Design Journey' graphic below shows a design process that you should follow in the design and manufacture of your Construction Technology coursework. This graphic maps your design journey through the sequence of engagements with the folio and artefact.
On completion of your design journey, you will have gained knowledge, skills, and experience through the process.



For further and more detailed information on the Exploring the Constructed Environment component, see NCCA Guidelines to support the Additional Assessment Components in Leaving Certificate Construction Technology.

4. Exploring the Constructed Environment Brief - Sample

Contemporary design is evident throughout the built environment, from furniture and architectural elements to interior spaces. The careful consideration of form, materials, construction methods, and user experience continues to shape the built environment and influence the way people interact with each other and with everyday objects.

Explore an aspect of contemporary design that is relevant to today's world. Investigate existing designs, materials, technologies, and construction techniques, and use your findings to develop an original design solution that addresses a human need or enhances everyday living.

In response to this brief, you are required to complete:

1. a design folio and
2. an artefact.

The artefact may take the form of a wood craft artefact **or** a model[1].

[1]Model: A scaled physical representation of a construction-related design, used to communicate the form, structure, detail of a building element, or space.

5. Exploring the Constructed Environment - structure and content

The Exploring the Constructed Environment component requires the submission of a design folio and an artefact. The following headings provide a guide to the content requirements for each element of the coursework.

Design Folio – structure and content

Your hardcopy design folio should include the following:

1. Explore and Investigate

- Analyse and interpret the thematic brief
- Select and clearly define an individual design focus for the coursework
- Conduct relevant primary and secondary research relating to the selected design focus
- Present the key research findings and conclusions
- Demonstrate how the findings and conclusions inform the development of the coursework.

2. Development of a Design Solution

- Develop and progress a design solution using notes, annotated sketches, drawings and/or models
- Communicate the development of the design and the decisions made throughout the process
- Present the final design solution in response to the selected design focus using appropriate sketches, drawings and/or models
- Justify the key decisions that informed the final design solution.

3. Planning the Manufacture

- Present detailed working drawings and/or sketches containing the information required to manufacture the design solution
- Present a list of the materials required
- Specify the materials, jointing and assembly methods, manufacturing processes, fixtures and fittings, and finishes required
- Present a clear and logical schedule for the manufacture of the artefact.

4. Evaluation and Reflection

- Evaluate how effectively the completed coursework meets the requirements of the thematic brief and the selected design focus
- Identify successful aspects of the design solution and areas for possible improvement or modification
- Reflect on the design journey, including the decisions made, challenges encountered, lessons learned, and skills gained for future work.

5. Relevant Referencing

- Appropriately record and reference all sources of information and images used
- Acknowledge any material generated using artificial intelligence (AI) software or applications, as set out in the relevant guidelines.

Artefact – structure and content

Your artefact should demonstrate the following:

1. Artefact Satisfies the Brief

- Fulfil the requirements of the thematic brief and the selected design focus
- Demonstrate fitness for purpose and appropriate function
- Consider scale, durability, sustainability, and safety.

2. Creativity

- Demonstrate originality and innovation
- Show effective use of materials, processes, and techniques
- Demonstrate appropriate consideration of aesthetics and visual impact.

3. Craft Skills and Techniques

- Demonstrate accuracy in marking out materials
- Demonstrate accuracy, precision, and appropriate craft skills throughout manufacture
- Demonstrate effective assembly of materials, components, and fittings
- Apply a range and depth of skills and techniques.

4. Finishing and Presentation

- Selection and application of an appropriate surface finish(s)
- Demonstrate quality and accuracy in the completed surface finish
- Overall quality and presentation of the completed artefact.

6. Mark allocation

The table below gives an outline of the marking headings that will be used to assess your completed coursework. While the general mark allocations will largely remain the same, assumptions about future mark breakdowns should be avoided.

Folio			
Heading	**Description**	**Suggested no. of pages**	**Marks**
Explore & Investigate	• Analysis and interpretation of the brief • Selection of a design focus • Relevant investigation and research • Key findings and conclusions	2 - 8	25
Development of a Design Solution	• Development and progression of a design • Final design solution • Justification of design decisions	2 - 4	25
Planning the Manufacture	• Working drawings and/or sketches • Materials, processes, and finishes • Schedule of manufacture	2 - 4	15
Evaluation & Reflection	• Evaluation of how the design solution meets the brief • Improvements or modifications • Reflection on the design journey and learning gained	1 - 2	10
Overall coherence & Presentation*			5
	Maximum no. of pages	**16**	
Artefact			
Artefact satisfies the brief	• Meeting the brief and selected design focus • Fitness for purpose and function • Scale, durability, sustainability, and safety		10
Creativity	• Originality and innovation • Effective use of materials, processes, and techniques • Aesthetics and visual impact		10
Craft Skills and Techniques	• Marking out • Processing • Assembly • Range and depth of skills and techniques		60
Finishing and Presentation	• Selection and application of finish(s) • Quality and accuracy of surface finish • Overall quality and presentation		20
	Overall Coursework Total		**180**

***Overall coherence and presentation**. Marks are awarded based on the quality of organisation, communication, and cohesion evident throughout the folio, including relevant referencing.