



*Leaving Certificate Examination 2010*

# *Technology*

## *Coursework Briefs*

*Ordinary Level and Higher Level*  
*200 marks*

*The Thematic Briefs for the Leaving Certificate Examination 2010 are given overleaf.*

*The Coursework must be available for assessment by Friday 30 April 2010.*

# Leaving Certificate Technology

## Ordinary Level and Higher Level 2010

### Instructions to candidates:

1. The coursework submitted for assessment must consist of two components:
  - a design folio *and*
  - an artefact.
2. All coursework submitted for assessment must be clearly identified with your examination number.
3. The coursework submitted for assessment must be **your own individual work** and must be completed in school under the supervision of the class teacher.
4. The design folio should record all stages of your work and should document how the artefact meets the stated thematic brief.
5. When using research sources, including the Internet, the sources **must be acknowledged**. Research material copied directly from the Internet or from other sources and presented as your own work will not receive any marks.
6. The coursework should display knowledge and skills developed through your study of the core and chosen options.
7. All important operating features of the artefact must be clearly visible and be easily accessible without dismantling.
8. Where an electrical supply is used to operate the artefact, it should be of low voltage output. Where specialised equipment is required, it must be set up by you, have clear operating instructions and be ready to use.
9. The coursework presented for assessment must be displayed in an attractive manner. Multimedia presentations, where submitted, must be of **maximum** 3 minutes duration, must be set up by the candidate and must be ready for viewing.

**The coursework must be available for assessment by Friday 30<sup>th</sup> April 2010.**

## Leaving Certificate 2010 - Ordinary Level

### **Thematic Brief:**

Road safety is an important issue for all road users. The importance of seat belts, helmets, high visibility clothing and road signage is often communicated through radio, television, poster campaigns and other media. However, some road users have not yet understood the importance of the road safety message.

Dioramas are colourful animated displays which often incorporate structures, mechanisms and electronics. These dynamic visual displays are used to increase the impact of important messages.

*Design and make an animated diorama to communicate an aspect of road safety which you consider to be important.*

*The diorama should be attractive, incorporate a mechanical and/or electronic system and should also be well presented.*

Note: The maximum dimension of the artefact you present for assessment should not exceed 500 mm.

Coursework at Ordinary Level is weighted as follows:

- Design Folio - 40% of marks
- Artefact - 60% of marks

Total - 200 marks

<b>Design Folio - Ordinary Level - 80 marks</b>			
<b>No.</b>	<b>Heading</b>	<b>Description</b>	<b>Marks</b>
1	Analysis, research and investigation	Analysis of thematic brief. Research into chosen area. Analysis of existing solutions.	30
2	Overall management of the project	Analysis of available resources, time and budget constraints; proposed timeframe etc.	
3	Environmental impact	Impact of materials and production processes; product use; suitability for reuse/recycling.	
4	Design ideas and selection of optimum solution	Annotated sketches and drawings outlining three possible solutions. Optimum solution identified and justified.	
5	Sketches and drawings for manufacture	Detailed annotated sketches and drawings including all elements/aspects of solution; circuit diagrams/ flowcharts/ models/prototypes/dimensions/scale/assembly details.	40
6	Production planning	Materials and component lists; scheduling, work breakdown structure, costing.	
7	Product realisation	Sequence of manufacture including photographic record.	
8	Evaluation and testing	Testing against chosen brief. Evaluation of final artefact. Comparison of planned schedules and actual schedules. Suggested modifications with justification.	10
9	Presentation and ICT	Correct sequence of presentation. Quality of material presented. ICT skills in production of folio.	

<b>Artefact - Ordinary Level - 120 marks</b>			
<b>No.</b>	<b>Heading</b>	<b>Description</b>	<b>Marks</b>
1	Artefact meets theme & specification	Solution presented meets the thematic brief and specifications as identified by the candidate.	30
2	Creativity	Creativity in design, aesthetics & ergonomics. Creativity in use of material.	
3	Production skills	Processing of materials. Assembly of materials and components. Range and depth of skills.	60
4	Functionality	Artefact works well. Limited use of commercial components.	
5	Quality and finish	High quality manufacture. Artefact well finished. Due regard for health and safety.	30
6	Presentation	Coursework well presented. Parts well integrated and labelled where appropriate.	

**Note:** *While the general headings and marks above will largely remain the same, breakdowns may vary depending on the actual brief for any given year.*

## Leaving Certificate 2010 - Higher Level

### **Thematic Brief:**

Entertainment events are enhanced by the settings in which they occur. Of particular importance is the performance area which enriches the audience experience through the creative use of structures and of factors such as movement, light and sound. With the evolution of personalised technology, opportunities now arise for individual members of the audience to interact with, and create an effect on, the performance area.

*Within the context of contemporary design and with a focus on enhancing the audience experience, design and make a working model of a dynamic performance area for an event of your choice. Individual audience members should have the opportunity to enhance their experience through interacting with the performance area.*

*The model should incorporate electronic and/or mechanical systems and should also be well presented.*

Note: The maximum dimension of the artefact you present for assessment should not exceed 500 mm.

Coursework at Higher Level is weighted as follows:

- Design Folio - 50% of marks
- Artefact - 50% of marks

Total - 200 marks

<b>Design Folio - Higher Level - 100 marks</b>			
<i>No.</i>	<i>Heading</i>	<i>Description</i>	<i>Marks</i>
1	Analysis of thematic brief	Evidence of research of the broader context of the theme. Specification of chosen parameters.	50
2	Overall management of the project	Analysis of available resources, time and budget constraints; proposed timeframe/Gantt chart, etc.	
3	Environmental impact	Demonstration of environmental awareness during design and realisation. Analysis of materials chosen for manufacture. Consideration of energy requirements, reuse/recycling etc.	
4	Research, investigation and specifications of brief	Further research into chosen area. Analysis of existing solutions. A statement outlining the candidate's final brief and related specifications.	
5	Design ideas and selection of optimum solution	Annotated sketches and drawings outlining three possible solutions. Optimum solution identified and justified.	
6	Sketches and drawings for manufacture	Detailed annotated sketches and drawings including all elements/aspects of solution; circuit diagrams/flowcharts/models/prototypes/dimensions/scale/assembly details.	35
7	Production planning	Materials and component lists; costing; scheduling, work breakdown structure; Gant charts, critical path diagrams.	
8	Product realisation	Sequence of manufacture including photographic record.	
9	Testing, evaluation and critical reflection	Testing against chosen brief. Evaluation of final artefact. Comparison of planned schedules and actual schedules. Suggested modifications with justification. Critical reflection on the entire process	15
10	Presentation and ICT	Correct sequence of presentation. Quality of material presented. ICT skills in production and presentation of folio.	

<b>Artefact - Higher Level - 100 marks</b>			
<i>No.</i>	<i>Heading</i>	<i>Description</i>	<i>Marks</i>
1	Artefact meets theme and specifications	Solution presented meets the thematic brief and specifications as identified by the candidate	30
2	Originality and creativity	Originality and creativity in design, aesthetics and ergonomics. Creativity in use of materials.	
3	Production skills	Processing of materials. Assembly of materials. Range and depth of skills.	45
4	Functionality	Artefact works well. Limited use of commercial components.	
5	Quality and finish	High quality manufacture. Artefact well finished. Due regard for health and safety.	25
6	Presentation	Coursework well presented. Parts well integrated and labelled where appropriate.	

**Note:** *While the general headings and marks above will largely remain the same, breakdowns may vary depending on the actual brief for any given year.*