

Instructions

• Please ensure that you have read this notice before the examination.

Information

- This notice covers Components 1A, 1B, 1C, 1D, 1E and 1F.
- The format/structure of the assessments remains unchanged.
- The advance information details the focus of the content of the exams in the May–June 2022 assessments.
- There are no restrictions on who can use this notice.
- This notice is meant to help students to focus their revision time.
- Students and teachers can discuss the advance information.
- This document has 7 pages.



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General advice

- In addition to covering the content outlined in the advance information, students and teachers should consider how to:
 - manage their revision of parts of the specification which may be assessed in areas not covered by the advance information
 - manage their revision of other parts of the specification which may provide knowledge which helps with understanding the areas being tested in 2022.
- For specifications with synoptic assessments, topics not explicitly given in the advance information may appear, e.g. where students are asked to bring together knowledge, skills and understanding from across the specification.
- For specifications with optional papers/topics/content, students should only refer to the advance information for their intended option.
- For specifications with NEA, advance information does not cover any NEA components.

A link to the Joint Council for Qualifications guidance document on advance information can be found on the Joint Council for Qualifications website or here.

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Advance Information

Subject specific section

- The advanced information set out below where possible reflects all of the paper's higher tariff questions, not including mathematics-related questions.
- High tariff question topics can also appear as lower tariff questions within the paper.
- The specification content is presented in numerical order as set out in the specification, and not reflecting the question order of the examination paper.
- Content not listed here can appear within the paper in any question style.
- The format and length of the exam paper will remain consistent with previous exam series.

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These topic references are drawn from Issue 2 of the Pearson Edexcel GCSE (9–1) Design and Technology specification which is available here.

Paper 1DT0/1A

- 1.2 How the critical evaluation of new and emerging technologies informs design decisions; considering contemporary and potential future scenarios from different perspectives, such as ethics and the environment
- 1.4 Developments in modern and smart materials, composite materials and technical textiles
- 1.12 The categorisation of the types, properties and structure of natural and manufactured timbers
- 2.3 The way in which the selection of ferrous and non-ferrous metal is influenced
- 2.7 Specialist techniques, tools, equipment and processes that can be used to shape, fabricate, construct and assemble a high-quality ferrous and/or non-ferrous metal prototype
- 2.8 Appropriate surface treatments and finishes that can be applied to ferrous and non-ferrous metals for functional and aesthetic purposes

Paper 1DT0/1B

- 1.2 How the critical evaluation of new and emerging technologies informs design decisions; considering contemporary and potential future scenarios from different perspectives, such as ethics and the environment
- 1.4 Developments in modern and smart materials, composite materials and technical textiles
- 1.12 The categorisation of the types, properties and structure of natural and manufactured timbers
- 3.2.2 The sources, origins, physical and working properties of papers and boards and their social and ecological footprint
 - Board
- 3.2.6 The sources, origins, physical and working properties of papers and boards and their social and ecological footprint
 - Working properties the way in which each material behaves or responds to external sources
- 3.3 The way in which the selection of papers and boards is influenced
- 3.7 Specialist techniques, tools, equipment and processes that can be used to shape, fabricate, construct and assemble a high-quality paper and board prototype

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Paper 1DT0/1C

- 1.2 How the critical evaluation of new and emerging technologies informs design decisions; considering contemporary and potential future scenarios from different perspectives, such as ethics and the environment
- 1.4 Developments in modern and smart materials, composite materials and technical textiles
- 1.12 The categorisation of the types, properties and structure of natural and manufactured timbers
- 4.3 The way in which the selection of thermoforming and thermosetting polymers is influenced
- 4.7 Specialist techniques, tools, equipment and processes that can be used to shape, fabricate, construct and assemble a high-quality thermoforming and thermosetting polymers prototype
- 4.8 Appropriate surface treatments and finishes that can be applied to thermoforming and thermosetting polymers for functional and aesthetic purposes

Paper 1DT0/1D

- 1.2 How the critical evaluation of new and emerging technologies informs design decisions; considering contemporary and potential future scenarios from different perspectives, such as ethics and the environment
- 1.4 Developments in modern and smart materials, composite materials and technical textiles
- 1.12 The categorisation of the types, properties and structure of natural and manufactured timbers
- 5.2.3 The sources, origins, physical and working properties of components and systems and their social and ecological footprint
 - Outputs
- 5.2.6 The sources, origins, physical and working properties of components and systems and their social and ecological footprint
 - Working properties the way in which each material behaves or responds to external sources
- 5.3 The way in which the selection of components and systems is influenced
- 5.7 Specialist techniques, tools, equipment and processes that can be used to shape, fabricate, construct and assemble a high-quality systems prototype

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Paper 1DT0/1E

- 1.2 How the critical evaluation of new and emerging technologies informs design decisions; considering contemporary and potential future scenarios from different perspectives, such as ethics and the environment
- 1.4 Developments in modern and smart materials, composite materials and technical textiles
- 1.12 The categorisation of the types, properties and structure of natural and manufactured timbers
- 6.2.2 The sources, origins, physical and working properties of natural, synthetic, woven and non-woven, knitted, blended and mixed-fibre textiles and their social and ecological footprint
 - Synthetic
- 6.2.7 The sources, origins, physical and working properties of natural, synthetic, woven and non-woven, knitted, blended and mixed-fibre textiles and their social and ecological footprint
 - Working properties the way in which each material behaves or responds to external sources
- 6.3 The way in which the selection of natural, synthetic, blended and mixed-fibre textiles is influenced
- 6.7 Specialist techniques, tools, equipment and processes that can be used on natural, synthetic, woven and non-woven, knitted, blended and mixed-fibre textiles to shape, fabricate, construct and assemble a high-quality prototype

Paper 1DT0/1F

- 1.2 How the critical evaluation of new and emerging technologies informs design decisions; considering contemporary and potential future scenarios from different perspectives, such as ethics and the environment
- 1.4 Developments in modern and smart materials, composite materials and technical textiles
- 1.12 The categorisation of the types, properties and structure of natural and manufactured timbers
- 7.2.3 The sources, origins, physical and working properties of each natural and manufactured timber and their social and ecological footprint
 - Manufactured timber
- 7.2.6 The sources, origins, physical and working properties of each natural and manufactured timber and their social and ecological footprint
 - Working properties the way in which each material behaves or responds to external sources

7.3	The way in which the selection of each natural and manufactured timber is influenced
7.7	Specialist techniques, tools, equipment and processes that can be used on each natural and manufactured timber to shape, fabricate, construct and assemble a high-quality prototype
END OF ADVANCE INFORMATION	