



Materials Design and Technology ATAR course practical (portfolio) examination marking key

2025

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Materials Design and Technology ATAR course practical (portfolio) marking key

100% (45 marks)

Description	Marks
Criterion 1: Statement of intent	
Critically analyses the design problem or situation to be solved using all of the client requirements, considerations and constraints, design fundamentals and performance criteria.	5
Analyses the design problem or situation to be solved using most of the client requirements, considerations and constraints, design fundamentals and performance criteria.	4
Describes the design problem or situation to be solved using most of the client requirements, considerations and constraints, design fundamentals and performance criteria.	3
Outlines the design problem or situation to be solved using some of the client requirements, considerations and constraints, design fundamentals and performance criteria.	2
States the design problem or situation to be solved with limited reference to the client requirements, considerations and constraints, design fundamentals and/or performance criteria.	1
Subtotal	/5
Criterion 2: Evidence of research	
Provides a critical analysis of all research relevant to the client's needs undertaken to develop a solution to the problem or situation.	5
Provides an analysis of research relevant to the client's needs undertaken to develop a solution to the problem or situation.	4
Provides a description of research relevant to the client's needs undertaken to develop a solution to the problem or situation.	3
Provides an outline of research undertaken to develop a solution to the problem or situation.	2
Provides a statement of research undertaken to develop a solution to the problem or situation.	1
Subtotal	/5
Criterion 3: Development of concepts and ideas	
Criterion 3.1: Rapid concept sketches	
Provides a wide range of annotated ideas, using appropriate technical terminology, exploring whole and parts of products. Demonstrates a clear relationship between research and concept development linked to the statement of intent. Shows evidence of ongoing client consultation.	5
Provides a range of annotated ideas, using technical terminology, exploring whole and parts of products and linked to research/concept development and the statement of intent. Shows evidence of ongoing client consultation.	4
Provides annotated ideas, using some technical terminology, exploring whole and parts of products and linked to research/concept development and the statement of intent. Shows some evidence of client consultation.	3
Provides some annotated ideas, using limited technical terminology, exploring whole and/or parts of products. Limited link to research/concept development/the statement of intent and limited evidence of client consultation.	2
Provides some ideas in relation to whole and/or parts of products. Limited link to research/concept development/the statement of intent and/or limited evidence of client consultation.	1
Subtotal	/5

Description	Marks
Criterion 3.2: Design development	
Generates four detailed design ideas that build upon the rapid concept sketches to show progress towards a solution. Shows evidence of ongoing client consultation with justification of ideas using the statement of intent.	6
Generates four design ideas that build upon the rapid concept sketches to show progress towards a solution. Shows evidence of client consultation with justification of ideas using the statement of intent.	5
Generates four design ideas that build upon the rapid concept sketches to show progress towards a solution. Shows some evidence of client consultation with some justification of ideas using the statement of intent.	4
Generates three or more design ideas that build upon the rapid concept sketches. Shows some evidence of client consultation and some use of the statement of intent.	3
Generates two or more design ideas that relate to the rapid concept sketches and link to client consultation/the statement of intent.	2
Generates one or more design idea/s that relate to the rapid concept sketches and/or link to client consultation/the statement of intent.	1
Subtotal	/6
Criterion 3.3: Justification of final design	
Provides a comprehensive justification of the final design concept using the statement of intent and client consultation. Justifies the selection of materials against design needs and the functional and aesthetic properties of materials.	3
Provides a justification of the final design concept using the statement of intent and some client consultation. Justifies the selection of some materials against design needs and/or the functional and aesthetic properties of materials.	2
Identifies and explains the final design concept using the statement of intent or client consultation. Explains the selection of some materials.	1
Subtotal	/3
Criterion 4: Production documents	
Criterion 4.1: Drawings	
Provides detailed, accurate context-appropriate 3D rendered presentation and 2D working drawings with relevant annotation, technical information and dimensions/measurements for the final product.	5
Provides mostly accurate context-appropriate 3D rendered presentation and 2D working drawings with some relevant annotation, technical information and dimensions/measurements for the final product.	4
Provides context-appropriate 3D and 2D drawings with some annotation, technical information and dimensions/measurements for the final product.	3
Provides context-appropriate 3D and 2D drawings with limited annotation, technical information and/or dimensions/measurements for the final product.	2
Provides context-appropriate drawings with limited annotations/information/dimensions/measurements for the final product.	1
Subtotal	/5
Criterion 4.2: Materials	
Provides a detailed and accurate materials list/s for the final product, including all components and consumables with cost calculations.	4
Provides a mostly accurate materials list/s for the final product, including most components and consumables with cost calculations.	3
Provides a materials list for the final product, including some components and consumables with some cost calculations.	2
Provides a materials list for the final product, including limited components/consumables and/or limited cost calculations.	1
Subtotal	/4

Criterion 4.3: Planning	
Provides a detailed sequential, logical and appropriate production plan that is accurately timed and includes details of equipment and safety procedures.	4
Provides a sequential, logical and appropriate production plan that is accurately timed and includes details of equipment and/or safety procedures.	3
Provides a sequential production plan that indicates some aspects of time management and includes some details of equipment and/or safety procedures.	2
Provides steps for the production that indicate some aspects of time management and/or equipment and/or safety procedures.	1
Subtotal	/4
Criterion 5: Visual evidence of production	
Provides annotated photographic evidence detailing the production process and showing all views and features of the product.	3
Provides annotated photographic evidence detailing the production process and showing some views and/or features of the product.	2
Provides some annotated photographic evidence of the production process showing some views and/or features of the product.	1
Subtotal	3
Criterion 6: Evaluation	
Provides a comprehensive and critical evaluation of the design and production processes, an explanation of the problems identified and the solutions proposed or applied, and an evaluation of the product against the statement of intent and performance criteria.	5
Provides a detailed evaluation of the design and production processes, an explanation of the problems identified and the solutions proposed or applied, and an evaluation of the product against the statement of intent and performance criteria.	4
Provides an evaluation of the design and production processes, a description of the problems identified and the solutions proposed or applied, and an evaluation of the product against the statement of intent.	3
Provides an evaluation of the design and production processes and an outline of the problems and/or solutions, with some connection to the statement of intent.	2
Provides a limited evaluation of the product or design or production processes, with limited connection to the statement of intent.	1
Subtotal	/5
Total	/45

Note: zero (0) will be used for each criterion when there is no evidence demonstrated relating to that criterion.