



NCFE Level 1/2 Technical Award in Creative Design and Production (603/7003/8)

Examined assessment

Paper number: Past paper

Date: Summer 2025

Mark Scheme

v1.0 Post-Standardisation

Past paper

This Mark Scheme has been written by the assessment writer and refined, alongside the relevant questions, by a panel of subject experts through the external assessment writing process and at standardisation meetings.

The purpose of this Mark Scheme is to give you:

- examples and criteria of the types of response expected from a learner
- information on how individual marks are to be awarded
- the allocated assessment objectives (AOs) and total mark for each question.

Marking guidelines

General guidelines

You must apply the following marking guidelines to all marking undertaken throughout the marking period. This is to ensure fairness to all learners, who must receive the same treatment. You must mark the first learner in exactly the same way as you mark the last.

- The Mark Scheme must be referred to throughout the marking period and applied consistently. Do not change your approach to marking after standardisation.
- Reward learners positively giving credit for what they have shown, rather than what they might have omitted.
- Utilise the whole mark range and always award full marks when the response merits them.
- Be prepared to award zero marks if the learner's response has no creditworthy material.
- Do not credit irrelevant material that does not answer the question, no matter how impressive the response might be.
- If you are in any doubt about the application of the Mark Scheme, you must consult with your team leader or the chief examiner.

Guidelines for using extended-response marking grids

Extended-response marking grids have been designed to award a learner's response holistically and should follow a best-fit approach. The grids are broken down into bands, with each band having an associated descriptor indicating the performance at that band. You should determine the band before determining the mark.

When determining a band, you should use a bottom-up approach. If the response meets all the descriptors in the lowest band, you should move to the next one, and so on, until the response matches the band descriptor. Remember to look at the overall quality of the response and reward learners positively, rather than focusing on small omissions. If the response covers aspects at different bands, you should use a best-fit approach at this stage and use the available marks within the band to credit the response appropriately.

When determining a mark, your decision should be based on the quality of the response in relation to the descriptors. You must also consider the relative weightings of the AOs, so as not to over / under credit a response. Standardisation materials, marked by the chief examiner, will help you with determining a mark. You will be able compare exemplar learner responses to live responses, to decide if they are same, better or worse.

You are reminded that the indicative content provided under the marking grid is there as a guide, and therefore you must credit any other suitable responses a learner may produce. It is not a requirement that learners must cover all of the indicative content to be awarded full marks.

Assessment objectives (AOs)

This unit requires learners to:

AO1	Recall knowledge and show understanding. The emphasis here is for learners to recall and communicate the fundamental elements of knowledge and understanding.
AO2	Apply knowledge and understanding. The emphasis here is for learners to apply their knowledge and understanding to real-world contexts and novel situations.
AO3	Analyse and evaluate knowledge and understanding. The emphasis here is for learners to develop analytical thinking skills to make reasoned judgements and reach conclusions.

The weightings of each AO can be found in the Qualification Specification.

Q	Mark scheme	Total marks
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Section A

Total for this section: 30 marks

1	Which one of the following describes a repeated decorative design? A Colour B Emphasis C Pattern D Scale Answer: C – Pattern	1 AO1=1
2	Which one of the following defines repair when considering sustainable design? A Breaking down an item into raw materials B Disposing of an item and buying a newer model C Fixing a broken item to extend its life D Replacing an item with a similar model Answer: C – Fixing a broken item to extend its life	1 AO1=1
3	Which one of the following describes ductility in a material? A The material can be pushed into a new fixed shape without breaking B The material can be stretched into a new fixed shape without breaking C The material will break into small pieces when pushed D The material will have the ability to resist rust Answer: B – The material can be stretched into a new fixed shape without breaking	1 AO1=1

4 (a)	Name one designer from the Art Nouveau period. Award one mark for any one of the following designers: • Louis Comfort Tiffany (1) • Charles Rennie Mackintosh (1) • Alphonse Mucha (1) • Victor Horta (1) • Hector Guimard (1). Accept spelling error of designer name. Accept any other suitable response.	1 AO1=1
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4 (b)	Give one key feature from the Art Nouveau period shown in the lamp below. The image shows a classic Art Nouveau lamp. The lampshade is made of stained glass in various colors (yellow, orange, red, green) and features a prominent dragonfly design in the center. The base of the lamp is dark and has a textured, organic shape that resembles a tree trunk or a cluster of roots. The overall design is characteristic of the Art Nouveau style, which often incorporates natural motifs and flowing lines. Award one mark for a given key feature: • the lamp showcases nature in the use of a floral / botanical / insect theme (1) • the lamp showcases flowing lines (1) • the base resembles tree trunks / vines (1) • the stained-glass pieces have jewel-like colours (1). Accept any other suitable response.	1 AO2=1
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5 (a)	Identify two computer-aided manufacture (CAM) techniques. Award one mark for a correct identification, up to a maximum of two marks: • laser cutting (1) • 3D printing (1) / rapid prototyping (1) • modelling (1) • prototyping (1). Accept any other suitable response.	2 AO1=2
5 (b)	Explain why using CAM would be a suitable technique for the production of cabinet door handles. Award two marks for the explanation, up to a maximum of two marks: • suitable for mass-produced items such as cabinet door handles as using CAM will produce identical outcomes (1) which will save time / money (1) • it can produce handles with a high degree of precision (1) which will ensure the design is accurate / high quality (1) • once the design of the cabinet door handles is programmed in, it works automatically (1) without needing human operators who may take regular breaks (1) • can connect to existing CAD (Computer-aided design) and use knowledge built into its software (1) so no new programming is needed to make the cabinet door handles (1). Accept any other suitable response.	2 AO2=2
6	Identify three ways that unsustainable design and production can impact the environment. Award one mark for identifying a way, up to a maximum of three marks: • removal of trees for use in raw materials (1) • pollution from the manufacturing process (1) • transportation of resources / ecological footprint (1) • damage to the environment in product disposal (1) • pollution from waste materials (1) • increased disposal in landfills (1) • depletion of natural resource / finite materials (1).	3 AO1=3

	Accept any other suitable response.	
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7 (a)	Jamal plans to print his own design onto 100 T-shirts to sell. He wants to use hand block printing to print the T-shirts. Give one advantage and one disadvantage of Jamal using the hand block printing technique to print his design onto the T-shirts. Award one mark for an advantage and one mark for a disadvantage, up to a maximum of two marks: Advantages: • hand block printing can achieve unique / precise designs, and each T-shirt can have slight variations making the prints feel personal / distinctive (1) • hand block printing uses natural dyes / materials making the T-shirts environmentally friendly / making the T-shirts more marketable (1). Disadvantages: • hand block printing is a slow process as each T-shirt is printed individually / often requires a significant amount of time / effort from Jamal (1) • since hand block printing is a manual process, there could be variations in the print quality / uneven colours / alignment across the T-shirts (1). Accept any other suitable response.	2 AO2=2
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7 (b)	Jamal would like to print 1000 T-shirts to sell over the next three months. He would like to use a different printing technique. He can choose between roller printing and screen printing. Justify which would be the best option for Jamal. Award one mark for a justification, up to a maximum of two marks: • roller printing requires upfront investment as it involves setting up the engraved rollers (1) screen printing has a lower setup	2 AO3=2
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	cost compared to roller printing therefore screen printing is best for Jamal (1) - roller printing is good for fine details / continuous patterns which makes prints consistent / precise (1) screen printing is good for bold / vibrant designs but can be less sharp than roller printing therefore roller printing is best for Jamal (1) - roller printing can have fast production / can print large quantities of the same design in a short space of time (1) screen printing is slower and if Jamal has multiple colours, this requires separate screens, so roller printing is best for Jamal (1) - roller printing is best for repetitive patterns / designs that are the same across all T-shirts (1) screen printing works well for custom designs / logos / small runs with different colours which is suitable for one-off designs, so it would depend on the design to see which is best for Jamal. (1). Accept any other suitable response.	
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8 (a)	Books are a type of resource used to carry out secondary research. Name two other resources that could be used to carry out secondary research. Award one mark for naming a resource, up to a maximum of two marks: - magazines (1) - the internet (websites / social media / blogs) (1) - work of others (1) - newspapers (1). Accept any other suitable response.	2 AO1=2
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8 (b)	Frank is designing a range of retro jewellery for a retailer. Explain how books could be useful for Frank's secondary research into his retro jewellery range. Award one mark for giving a correct explanation, up to a maximum of two marks: books can provide detailed context / inspiration about popular retro-styled jewellery (1) that can help Frank understand	2 AO2=2
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	cultural / social / economic factors that influenced design trends during the era (1) books that explore jewellery making techniques / materials used / craftsmanship can help Frank understand how the retro jewellery was produced (1) which can give him insights into the types of techniques / materials that he could use and could inform his design / sourcing materials (1). Accept any other suitable response.	
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8 (c)	Frank creates a mood board to develop ideas for his retro jewellery range. Describe one way that Frank can use the mood board to organise his ideas. Award one mark for any of the following explanation points, up to a maximum of two marks. - Frank can display his ideas by organising them into themed sections that represent different eras / styles (1) which will demonstrate what has appealed to him and why such ideas are important for his designs (1). - Frank could use the mood board to display different materials / textures that evoke a retro feel (1), and this approach allows him to visualise how the materials / textures come together and how they will inform the look / feel of the jewellery pieces (1). Accept any other suitable response.	2 AO2=2
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9	Ali is working on a new coffee table design and plans to use questionnaires and interviews as primary research methods to help inform the design. Suggest how questionnaires and interviews could be used in Ali's research. Award one mark for a suggested point, up to a maximum of two marks per suggestion, up to a maximum of four marks. - Questionnaires can be given to potential clients asking about their preferred sizes of coffee table / functionality / features (1) and Ali can then ensure his designs are within a given range that would suit the client needs (1). - Data from questionnaires can produce quantifiable data / be presented in the form of graphs / charts (1) which can ensure the	4 AO3=4
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	results are incorporated into Ali's design which meets client's needs (1). - Interviews can give Ali personalised feedback from the target market that may not be captured in a questionnaire (1) and then Ali can explore further into any issues, and this can inform his new design (1). - Interviews can allow for open-ended questions that cannot be asked in a questionnaire (1) which could allow Ali to probe deeper into the response given (1). Accept any other suitable response.	
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10 (a)	State the date range associated with the Art Deco movement. Award one mark for a correct identification: 1920 – 1940 (1) Accept date ranges + / - 10 years.	1 AO1=1
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10 (b)	Identify one social factor associated with the Art Deco movement. Award one mark for a correct identification: - reaction to World War I (1) - Greek / Egyptian / Aztec influences (1) - initially targeted to the wealthy (1). Accept any other suitable response.	1 AO1=1
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10 (c)	The image of the cup and saucer below illustrates key features of the Art Deco movement.  State two key features of this design that show it is influenced by the Art Deco movement. Award one mark for a statement of a feature, up to a maximum of two marks: • linear stylised 'sunray' design motif on the cup was a popular motif of the movement (1) • the concentric circles on the saucer reflect the fondness for circles and flowing curves (1) • simple / plain shape of cup and saucer show an attempt to create a sophisticated appearance (1) • the handle is a solid triangle but can still be held reflecting how the object is functional as well as stylish (1) • straight lines of cup shape reflect ultra-modern, sleek design (1) • use of geometric shapes to emphasis symmetry (1) • bright / vibrant / bold colour to reflect boldness and precision (1) • blocks of colour used to highlight a modern / confident era that represents progress / luxury (1). Accept any other suitable response.	2 AO2=2
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Q	Mark scheme	Total marks
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Section B

Total for this section: 14 marks

11	Which one of the following is a physical method of promoting a creative design business? A Blog B Social media C Website D Workshop Answer: D – Workshop	1 AO1=1
12	Which one of the following is a description of resilience in the design production industry? A Avoid working as part of a team B Deal with setbacks in challenging situations C Focus on a single goal and ignore other factors D Pay attention to detail Answer: B – Deal with setbacks in challenging situations	1 AO1=1
13	Which one of the following best describes crowdfunding? A Advertising new prices of products on a website B Applying for a grant from the local council C Giving away free samples from a new business D Raising money through an online platform Answer: D – Raising money through an online platform	1 AO1=1

14 (a)	Give two purposes of self-promotion in the design production industry. Award one mark for a correct purpose, up to a maximum of two marks: • to develop a professional persona (1) • to stand out against competition (1) • to build confidence (1) • to build a brand / image (1) • to gain work (1) • to gain / maintain reputation (1). Accept any other suitable response.	2 AO1=2
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14 (b)	Bobby designs and makes recyclable shopping bags. He will use digital promotional methods to increase sales. Give one reason why using digital promotional methods will help Bobby increase sales. Award one mark for a correct reason: • digital promotional methods may allow Bobby to display his products / give viewers information about how these are made / sustainable (1) • digital promotional methods will allow Bobby to reach a larger / wider audience / targeted audience who is interested in these types of bags (1) • digital promotional methods can help Bobby track and analyse customer behaviour / provide insight into how customers interact with his products (1). Accept any other suitable response. Accept social media brand names.	1 AO2=1
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15 (a)	Joe has completed a creative design and production qualification. Identify one design and production industry sector Joe could work in.	1 AO1=1
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	Award one mark for an identification of an industry sector: • architecture (1) • construction (1) • manufacturing (1) • craft (1) • design (1) • fashion (1) • museums / galleries / libraries (1) • prop making / set / exhibition display (1) • visual arts (1) • engineering (1). Accept any other suitable response.	
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15 (b)	Joe has been successful in securing a freelance contract in the design and production industry. Explain one disadvantage of working freelance in the design and production industry. Award one mark for each explanation, up to a maximum of two marks: • Joe may not have job stability / financial security (1) as freelance is not a permanent role (1). • Joe may not have access to resources / high-end tools / software / equipment as he would have to purchase these himself (1) which will increase personal expenses on design programs and technology (1). • Without the formal structure of a company, there might be fewer opportunities for Joe to develop professionally (1) as Joe may have to proactively seek out opportunities for learning and skill development (1). Accept any other suitable response.	2 AO2=2
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16	A toy company has been commissioned to design a new product line. It requires new inventors to design the new product line. Describe one skill an inventor may have that would support the design of the new product line.	2 AO2=2
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	Award one mark for a description, up to a maximum of two marks. • An inventor will have the ability to create new ideas that set the toy company apart in a competitive market (1) which can help them stand out / increase customer interest in the new product line (1). • An inventor will have technical knowledge / creative imagination to think outside the box (1) which will give them the competitive advantage over other companies designing a new product line (1). • An inventor will have communication skills to clearly explain their design ideas / improvements (1) which will ensure the product vision is understood by manufacturers / marketers / investors (1). Accept any other suitable response.	
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17	A creative designer must present new design ideas for curtains to a client. Discuss one digital presentation method the creative designer could use to present their new design ideas. Award one mark for each part of the discussion, up to a maximum of three marks. • PowerPoint / Canva presentation / digital portfolio is accessible by a wide audience / can be sent as an attachment through email (1) however, this can be static / no interactivity (1) which could be an issue with the viewers and how they engage with the content (1). • CAD Display (photoshop / Illustrator) allows the creative designer to develop a professional presentation with good representation of the product (1) however, the software may be expensive to buy / may need training (1) which could result in extra costs for the creative designer (1). • Video can combine many elements together / show the curtains being used / annotation / music (1) however, this may take longer to produce / may use large file sizes (1) which could cause issues for the creative designer (1). • Website is accessible by a wide audience at any time (1) and this could look professional (1) however, it will take time to build / may need to develop new skills (1). Accept any other suitable response.	3 AO3=3
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Q	Mark scheme	Total marks
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Section C

Total for this section: 18 marks

18	Which one of the following is an example of batch production? A A group of identical products made at the same time B Producing thousands of products in a constant flow C Ten customised single items produced D The production of a single unique product Answer: A – A group of identical products made at the same time	1 AO1=1
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19	Which one of the following needs to be carried out to reduce injury in a workshop? A Cost analysis B Production plan C Quality control D Risk assessment Answer: D – Risk assessment	1 AO1=1
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20	 Which one of the following types of technical drawing is shown in the image above? A Elevation B Isometric C Oblique D Perspective Answer: D – Perspective	1 AO1=1
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21 (a)	Visual sampling is one method of quality control during the production process. Identify one other method of quality control. Award one mark for identifying a method of quality control: • random • testing • measuring • tolerances.	1 AO1=1
21 (b)	Lou is planning the production process for a new backpack design. Give one way Lou can use visual sampling to ensure high standards in the production process. Award one mark for a statement. • Lou could select a backpack and examine whether it conforms to the specifications and check for issues (1). • Lou can identify any quality issues (stitching errors / broken zips / clips) to ensure the backpacks meet quality control measures (1). Accept any other suitable response.	1 AO2=1
22 (a)	Mo has been asked by a charity to design some branded stationery items. The items will be given away at a fundraising event. Describe one copyright issue that may affect Mo's design of the branded stationery items. Award one mark for a description of copyright issues, up to a maximum of two marks: • If the charity has an existing copyright logo / typeface / colour that Mo must use on the branded stationery (1) then Mo may be able to adapt elements without losing the existing copyright protection (1).	2 AO2=2

	- Mo may need to get permission to use the charity's design features (1) and they must ensure that these works are in the public domain / licensed for commercial use / permission has been granted (1). - There may be colours and typefaces of rival charities that Mo must avoid using when designing the branded stationery (1) to prevent potential accusations of infringement of their copyright (1). Accept any other suitable response.	
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22 (b)	The stationery items that Mo has been asked to design will be given away for free during the fundraising event. Discuss one way that this may impact Mo's design ideas for the stationery items. Award one mark for a discussion point, up to a maximum of two marks. - Mo's stationery design may need to use inexpensive materials to save the charity money (1). However, cheaper materials may result in poorer quality stationery reflecting badly on the charity (1). - If the products are low in quality, this may mean they break easily / are unreliable to use (1) and this will waste time / money for both Mo and the charity, resulting in this becoming costly (1). - If the products appear high quality / sustainable, this will reflect well on the charity (1) but may incur higher production costs which will lower the charity's finances (1). Accept any other suitable response.	2 AO3=2
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23	Name three elements a designer should include in a summative review of a design solution. Award one mark for giving an accurate element of the design solution, up to a maximum of three marks. - design principles (1) - design processes (1) - meeting the needs of the brief: - functionality of product (1) - suitability for target audience (1) - usability / performance (1)	3 AO1=3
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	○ how challenges faced were resolved (1) ○ future developments / modifications (1) ○ lessons learnt (1) ○ review of prototype (1) ○ adhere to the constraints of the brief / time / cost (1). Accept any other suitable response.	
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24 (a)	Face masks are a type of personal protective equipment (PPE). Identify one other type of PPE. Award one mark for an identified item of PPE: • safety goggles • ear plugs • protective gloves / leather gauntlets • steel toe-capped boots • apron / overalls / boiler suit. Accept any other suitable response.	1 AO1=1
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24 (b)	Amy wears a face mask when using machinery to cut planks of wood for a wardrobe. State how using a facemask will protect Amy when cutting planks of wood. Award one mark for a statement: • a face mask will protect her lungs as she could inhale wood dust (1). Accept any other suitable response.	1 AO2=1
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25 (a)	A packaging production company has been asked to produce new food packaging for a takeaway restaurant. Surface treatments and finishing techniques are examples of production techniques. Explain one other production technique that could be used to produce food packaging for the takeaway restaurant. Award one mark for an explanation point, up to a maximum of two marks. • Cutting / joining / construction techniques can be used to assemble parts of the packaging (1) as these methods will ensure the packaging holds together securely and is functional / reliable for containing food (1). Accept any other suitable response.	2 AO2=2
25 (b)	The takeaway restaurant manager states that: ‘Surface treatment is the most important production technique when making packaging.’ Discuss the accuracy of this statement. Award one mark for a discussion point, up to a maximum of two marks: • Surface treatments can improve the strength / resistance of packaging materials to ensure they can better withstand moisture (1) as well as considering the prevention of absorbing grease / moisture, keeping the packaging from weakening / breaking apart so the statement is accurate (1). • As surface treatment is a key component, it should be considered alongside material selection / design / joining technique to ensure watertight packaging is achieved (1). So, this statement is true as this approach could also better protect the contents from moisture and water damage (1). Accept any other suitable response.	2 AO3=2

Q	Mark scheme	Total marks
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Section D

Total for this section: 18 marks

26	The image below shows a chair from the Bauhaus design movement. The designer has used tubular steel and leather in designing the chair.  Analyse the suitability of the design materials used in the image. In your response you should include reference to: - the key social factors of the Bauhaus design movement - the key features of the Bauhaus design movement. <table border="1"> <thead> <tr> <th>Band</th><th>Mark</th><th>Descriptor</th></tr> </thead> <tbody> <tr> <td>3</td><td>7 to 9</td><td> AO3 – excellent analysis of design movement that is comprehensive and highly relevant. Supported with excellent justification for the suggested design materials and processes that are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of design movement and materials that is comprehensive, highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of design movement and design materials, that is also comprehensive. Subject-specific terminology is used consistently throughout. </td></tr> </tbody> </table>	Band	Mark	Descriptor	3	7 to 9	AO3 – excellent analysis of design movement that is comprehensive and highly relevant. Supported with excellent justification for the suggested design materials and processes that are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of design movement and materials that is comprehensive, highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of design movement and design materials, that is also comprehensive. Subject-specific terminology is used consistently throughout.	9 AO1=3 AO2=3 AO3=3
Band	Mark	Descriptor						
3	7 to 9	AO3 – excellent analysis of design movement that is comprehensive and highly relevant. Supported with excellent justification for the suggested design materials and processes that are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of design movement and materials that is comprehensive, highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of design movement and design materials, that is also comprehensive. Subject-specific terminology is used consistently throughout.						

2	4 to 6	AO3 – good analysis of design movement that is detailed and mostly relevant. Supported with good, detailed justification for the suggested design materials and processes. AO2 – good application of knowledge and understanding of design movement and materials that is detailed and relevant to the question. AO1 – good recall of knowledge and understanding of design movement and materials that contains some detail. Subject-specific terminology is used but not always consistently.
1	1 to 3	AO3 – limited analysis of design. Supported with limited justification for the suggested design materials and processes. AO2 – limited application of knowledge and understanding of design movement and materials that has minimal detailed and minimal relevance to the question. AO1 – limited recall of knowledge and understanding of design movement and materials with minimal detail. Discussion lacks understanding and use of subject-specific terminology is minimal or inappropriate.
	0	No rewardable material

Examiners are reminded that indicative content reflects content-related points that learners may make but is not an exhaustive list, nor is it a model answer. Learners may make all, some or none of the points included in the indicative content. Learners must be credited for any other appropriate response.

It is not a requirement that the learners formulate a response specifically against each AO as laid out in the indicative content.

Indicative content

AO1 – learners will recall knowledge and understanding of the design movement and materials, which may include the following:

Key social factors:

- aesthetics of fine art applied to everyday items
- function over decoration

	Key features: - streamlined design with little or no embellishment or ornamentation - mass production, use of industrial materials Key designers: - Marcel Breuer AO2 – learners will apply knowledge and understanding of design movement, materials and how they are used, which may include the following: The chair represents the Bauhaus design movement (1919-33). It was designed by Marcel Breuer in 1925. The frame is tubular metal (steel) with a shiny chrome finish. The slats are belting leather, although other models used haired cowhide or natural canvas and came in a variety of colours (red, brown). - metal (tubular steel or other metals) can be bent to the required shape for the frame and is cheap to manufacture so the chair can be mass-produced - metal can be lightweight, especially if hollow and can be produced with a range of finishes - leather / canvas is hard-wearing but flexible so combines strength with a degree of comfort and can be dyed to produce a range of colours - synthetic fabrics (such as nylon, acetate, acrylic, PVC faux leather) may be flexible and hard-wearing but may have limited strength which may not provide longevity. Learners may include reference to: - key principles of design – movement, symmetry, harmony, balance, space, simplicity, focal point - function – ergonomics, purpose of the designs and comfort for user, stability, load bearing - aesthetics – finish, colour, form, feel of materials - surface treatments – chrome-plating on steel - construction – how shapes support weight, how materials can be used to make them load bearing, use of tubular metal. AO3 – learners will analyse the design movement, materials and their suitability for purpose and application to design. They will use their evaluative judgement to make informed justification of suitable materials for the chair, which may include the following: - Tubular steel would work for the frame because it is lightweight, it can be easily moulded to the required shape and is cheap to manufacture which allows for mass production which can lead	
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	to the chair being produced in a variety of finishes / leading to increase profit margins when sold to consumers. • Leather / canvas would work for the slats on the chair because both are hard-wearing for longevity, flexible enough to give a degree of comfort, however, this could be an expensive material and can be treated / manufactured to produce a range of colours which allows for different designs to suit a wide target market / audience. • Utilitarian form, industrial materials, angular shapes, streamlined design, absence of ornamentation suggest Bauhaus (specifically Marcel Breuer) so dates approximately 1920s / 30s (+/- 10 years) which confirms the chair is part of this movement. Accept any other suitable response.	
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			AO2 – good application of knowledge and understanding of review processes for a design solution and for the social and ergonomic factors of the product that are detailed and mostly relevant. AO1 – good recall of knowledge and understanding of design principles and social and ergonomic factors, that is mostly detailed. Subject-specific terminology is used but not always consistently.	
1	1 to 3		AO3 – limited evaluation of the design solution. Supported with limited justifications for the social and ergonomic factors of the product that have minimal detail and lack depth. AO2 – limited application of knowledge and understanding of review processes for a design solution and for the social and ergonomic factors regarding the product that have minimal detail, minimal relevance and lack depth. AO1 – limited recall of knowledge and understanding of design principles and social and ergonomic factors. Discussion lacks understanding and use of subject-specific terminology is minimal or inappropriate.	
	0		No rewardable material	

Examiners are reminded that indicative content reflects content-related points that learners may make but is not an exhaustive list, nor is it a model answer. Learners may make all, some or none of the points included in the indicative content. Learners must be credited for any other appropriate response.

It is not a requirement that the learners formulate a response specifically against each AO as laid out in the indicative content.

Indicative content

AO1 – learners will recall knowledge and understanding of design principles and social and ergonomic factors which may include the following:

- the design correctly accommodates two single beds, one above the other
- there appears to be no means of climbing to the top bunk

	- the headboards do not appear to be supportive or comfortable to lean against - there are no details given about materials, measurements or dimensions. AO2 – learners will apply knowledge and understanding of the review processes for a design solution and for the social and ergonomic factors regarding the product which may include the following: Design principles: - the top bunk may be too high, both aesthetically and for safe use for children aged 5 to 12 - there is no safe way for children to get up and down from the top bunk bed - the functionality of the bunk bed does not appear to fit the intended purpose outlined in the design brief - the bunk bed is not suitable based on the brief given nor for the intended market. Design process: The problems highlighted below suggest that steps of the design process may have been missed: - initial research - testing - responding to feedback - redesigning. Meeting the needs of the brief: - children's furniture needs to withstand a high level of wear and tear – the material and strength of the material is unknown - the frame looks lightweight – it may be too light to be stable - there are no measurements so the dimensions may be unsuitable - the jagged edges may pose a safety issue, especially for children. AO3 – learners will evaluate the suitability of the design for its purpose: Possible ways in which the design solution may be ineffective: - a means of getting on and off the top bunk bed, as a ladder is missing - if there is lots of space between the top and bottom bunk bed, the top bunk bed may be dangerously high for younger children so poses a risk of falling - the jagged edges of the dinosaur headboard may pose a safety issue for children - the frame may be too lightweight with a danger of tipping over - the dinosaur headboard is too low down: - the fun shape would be covered by a pillow	
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	○ there is too little headboard for a child to safely lean against if sitting which could cause serious harm ● without measurements, the dimensions may be unsuitable in line with standard bed sizes ● without information on the materials used it is difficult to determine: ○ strength of bed frame ○ exact materials ○ how the bed will be produced ○ if it can be produced locally ○ production costs ○ suitability for mass production ○ if the frame is lightweight enough to move easily ○ if the frame is robust enough to withstand rough treatment. Possible improvements to the design solution: ● provide a ladder to get to the top bunk ● reduce the height gap between the top and bottom bunk ● redesign the dinosaurs to remove the jagged edges and make the headboards safer: ○ replace with a solid sheet with a straight or curved edge and a dinosaur design on it in relief print / etched ○ use a softer material on the headboards as padding ● extend the dinosaur headboards to give more support to a child sitting up in bed ● add a rail around the mattress space on the bottom bunk to stop the mattress slipping ● state dimensions / weight / material of the frame ● state how the frame will be manufactured / mass-produced ● state if the frame can be made of sustainable materials ● give approximate cost of a single unit. Accept any other suitable response.	
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Assessment objective (AO) grid

Section A

Question	AO1	AO2	AO3	Total
1	1			1
2	1			1
3	1			1
4 (a)	1			1
4 (b)		1		1
5 (a)	2			2
5 (b)		2		2
6	3			3
7 (a)		2		2
7 (b)			2	2
8 (a)	2			2
8 (b)		2		2
8 (c)		2		2
9			4	4
10 (a)	1			1
10 (b)	1			1
10 (c)		2		2
Total	13	11	6	30

Section B

Question	AO1	AO2	AO3	Total
11	1			1
12	1			1
13	1			1
14 (a)	2			2
14 (b)		1		1
15 (a)	1			1
15 (b)		2		2
16		2		2
17			3	3
Total	6	5	3	14

Section C

Question	AO1	AO2	AO3	Total
18	1			1
19	1			1
20	1			1
21 (a)	1			1
21 (b)		1		1
22 (a)		2		2
22 (b)			2	2
23	3			3
24 (a)	1			1
24 (b)		1		1
25 (a)		2		2
25 (b)			2	2
Total	8	6	4	18

Section D

Question	AO1	AO2	AO3	Total
26	3	3	3	9
27	3	3	3	9
Total	6	6	6	18