

GCSE

Design and Technology: Product Design

Unit **A554**: Designing Influences

General Certificate of Secondary Education

Mark Scheme for June 2014

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Annotations

Annotation	Meaning
	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
	Green Tick - Creditable point
	Seen - Use to indicate that an answer has been seen. Only to be used where no credit is given.

Subject-specific Marking Instructions

Question		Answer			Marks	Guidance
1	(a)	Product Feature		Design Influence	3	<p>ANTHROPOMETRICS HAS BEEN GIVEN TO THEM – DO NOT REWARD</p> <p>If more than 1 line / arrow to a descriptor do not reward</p> <p>Award 1 mark for each correct answer</p>
		Fairtrade cotton lining		Function		
		Padded handles		Sustainability		
		Pockets		Anthropometrics		
		Size of handles		Ergonomics		
	(b)	<p>Any from:</p> <p>Existing products research/comparison, product analysis, examination of competition, Internet Research</p> <p>Consumer/user survey/questionnaires/online survey Consumer /user interviews/Focus groups</p> <p>Market map, Market trends/trending/sales data</p>			2	<p>2 x 1 mark for each relevant method identified</p> <p>Answers must be a description of market research methods.</p> <p>Do not accept: Weight, sizes, anthropometrics, features of bag or specific questions that would be contained within interview or questionnaire</p>

(c)	<p>Any two points from:</p> <p>Establish if there is a demand/gap in the market for their product.</p> <p>Find out the price they can charge for the product.</p> <p>Establish customer/user needs/avoid wasting money on a product that is not in demand by consumers,</p> <p>Inform the design of their products, prototype testing – identify design improvements</p> <p>Identify a target market.</p> <p>Find out what is in fashion/trending</p> <p>Identify flaws/features in competitor products</p>	2	<p>2 x 1 Marks</p> <p>Answers must be clear. Do not try to interpret the candidate responses.</p> <p>Do Not Reward</p> <p>Anthropometric or ergonomic</p> <p>Right size for target market</p>
(d)	<p>Answers should refer to:</p> <p>Promote interest in the product/inform customer</p> <p>Used to attract a certain target group.</p> <p>Persuade people to try a new product.</p> <p>To increase sales</p> <p>Stand out from competition/recognise product</p>	3	<p>1 mark each for up to two of the given answers (2) plus 1 mark for discussion exemplification/explanation/discussion.</p> <p>OR</p> <p>1 mark for any one of the given answers plus up to 2 marks for detailed exemplification/explanation/discussion.</p> <p>Maximum of two marks for three separate creditable points</p>
Total		10	

Question		Answer	Marks	Guidance
2	(a)	<p>Reasons include:</p> <p>Lifestyles Change/Parents are busy/work/family eat at different times</p> <p>Ready meals quick & easy to prepare/Saves on cooking time/do not need cooking skills/minimises waste</p> <p>Convenient for consumers such as the elderly, people who live on their own.</p> <p>Microwaveable without the need for an oven/hob.</p> <p>Diverse range of meals available.(Curry, Mexican, Pasta)</p> <p>Special meals for dietary requirements.</p> <p>Saves buying all ingredients and making from scratch</p> <p>Easy to store and can be stored for use at a later time/can be frozen/long shelf life</p> <p>Heat proof container/no cooking utensils required/reduced washing up</p> <p>Aggressively promoted. Appealing packaging.</p> <p>Cheaper to buy than separate ingredients</p>	2	<p>1 mark for each point</p> <p>2 x 1 marks</p> <p>Do not accept answers without a reason, e.g. easy/quick/inexpensive/cheaper. Taste should be qualified – not just taste good</p>

Question	Answer	Marks	Guidance
(b)	<p>Reasons include:</p> <p>Products in a batch can be made identical</p> <p>Batch production is flexible/batches can be varied slightly if required</p> <p>Can react to demand by stopping or increasing the production/less waste.</p> <p>Wide range of products can be made with batch production.</p> <p>Is quicker than producing one offs.</p> <p>Requires a less skilled so cheaper workforce than one-off production/increased automation can lead to reduced numbers of staff</p> <p>Components can be purchased in bulk saving money.</p> <p>Equipment can be used for more than one product.</p>	3	<p>1 mark for each relevant point</p> <p>Do not accept one word answers without clarification – e.g. cheap/quick/easy</p> <p>3 x 1 Marks</p>
(c)	<p>Answers should refer to:</p> <p>To protect their logo/name/brand</p> <p>To stop other companies using a similar mark for their goods.</p> <p>Legal action can be taken against companies which copy/use logo/name/brand</p> <p>Recognition of quality brand</p>	2	<p>2 x 1 mark for each point in description</p> <p>Or</p> <p>1 mark for any one description plus 1 marks for detailed exemplification/explanation/discussion/justification.</p> <p>Do not accept protection of product design, idea or other copyright related answers.</p>

Question	Answer	Marks	Guidance
(d)	<p>Answers should refer to:</p> <p>Safety labels can be placed on products so consumers know they have passed quality tests.</p> <p>Labels on products give details of ingredients/components</p> <p>Labels on products can warn consumers of potential hazards – Toxic ingredients, flammable.</p> <p>Labelling can give consumers instructions on the safe use of products. Safe storage information</p> <p>Appropriate cooking instructions for food products</p> <p>Use by and best before dates</p> <p>Can give information in contents/ingredients for allergy sufferers. Dietary/Nutritional Information.</p> <p>Care instructions</p> <p>Age restrictions for use of product.</p>	3	<p>1 mark each for up to two of the given answers (2) plus 1 mark for discussion exemplification/explanation/discussion.</p> <p>OR</p> <p>1 mark for any one of the given answers plus up to 2 marks for detailed exemplification/explanation/discussion.</p> <p>Maximum of two marks for three separate creditable points</p>
	Total	10	

Question		Answer	Marks	Guidance
3	(a)	<p>Answers relating to the Baby</p> <p>Padded fabrics</p> <p>Adjustable hood/seat for comfort of baby</p> <p>Waterproof/weatherproof</p> <p>Better suspension/smooth ride</p> <p>Better insulation/warmer</p> <p>Sun Visor</p> <p>Sit up / lay down seat</p> <p>Seat belt/harness</p> <p>Soft tyres</p> <p>Features to keep them entertained, e.g. toy attachments</p>	3	<p>Accept one word answers.</p> <p>Do not accept</p> <p>Answers relating to the parent e.g. storage under pushchair</p> <p>Small wheels do not give smoother ride or increase stability.</p> <p>Brakes.</p>

Question	Answer	Marks	Guidance
(b)	<p>Answers relating to the parent</p> <p>Adjustable handles allows for different heights/aids comfort</p> <p>Grips on the handles to hold the pram safely and comfortably.</p> <p>Wheels that swivel to make it easier to manoeuvre.</p> <p>Wheels are doubled up increasing surface contact with ground. Improved performance on softer ground.</p> <p>Improved weight/strength/more lightweight ratio makes it easier for parent to pick up/manoeuvre</p> <p>Foldable to allow for easier storage or transport</p> <p>Shopping basket to allow items to be stored when out walking/shopping/parents do not have to carry bags leaving hands free/items easily organised/accessible</p> <p>Adaptable from pram to buggy/pushchair so no additional cost to parent of buying both.</p> <p>Lockable wheels/better braking system to make the pram safer when 'parked'.</p>	4	<p>An explanation of two different improvements and how it benefits the parent.</p> <p>2 x 2 Marks for identifying a design feature (1) and explaining how it is of benefit to the parent (1).</p> <p><i>Storage underneath can be used to store toys and baby supplies(1), so that they do not need to be carried separately(1)</i></p> <p><i>Buggy is foldable/collapsible making it easy to store/transport(1) and occupying less space(1)</i></p> <p>Assume that by rotating wheels the student means - Swivel</p> <p>Do not accept Answers relating benefits for the baby</p>

3	(c)	<p>Answers should refer to:</p> <p>Examples - materials and technologies</p> <p>Computer Aided Design / Manufacture, 3D printing, laser cutter</p> <p>Computer Integrated Manufacturing</p> <p>Modern plastics forming methods (injection moulding, rotational)</p> <p>Automated production processes</p> <p>Robotics in manufacturing</p> <p>Modern food manufacturing processes</p> <p>Smart materials: shape memory alloys & polymers, polymorph, thermochromic materials, photochromic materials, nano technology</p> <p>Modern materials: FlexiPLY, Flexi veneer, Hexaboard, anodised aluminium sheet, composites, Kevlar, carbon fibre, modern textiles</p>	3	<p>If no influence on modern day products given max. 2 marks</p> <p>1 mark for up to two of the 'examples' plus 1 for discussion OR 1 mark for any one of the 'examples' plus up to 2 marks for detailed explanation/discussion.</p> <p>Example Computer aided design is often used in the design of products. (1) This allows designs to be generated quicker (1) and allows design alterations to be carried out easily (1).</p> <p>Modern fabrics such as Gore-Tex (1) are used in the design of outdoor clothing. Gore-Tex is a breathable fabric (1) that protects users from wind/rain (1).</p> <p>CIM (1) is widely used in electronic manufacturing. Pick and place robots (1) select and place components prior to automated soldering (1).</p> <p>Injection moulding (1) is commonly used to produce complex plastic components (1). High tolerance and fine detail can be obtained (1).</p> <p>Blast freezing (1) protects the nutritional content (1) of food and prolongs the useful life of food products (1).</p>
		Total	10	

Question		Answer	Marks	Guidance
4	(a)	<p>Level 3 (5 to 6 marks) <i>Detailed understanding of the influence of the Trend Setter.</i> <i>Specialist terms used appropriately and correctly.</i> <i>Information presented in structured format.</i> <i>Accurate use of grammar, punctuation and spelling with few minor errors.</i></p> <p>Range of well made points that mostly relate to the Trendsetter and with reasoned explanations through discussion and justification</p> <p>Level 2 (3 to 4 marks) <i>Reasonable understanding of the influence of the Trend Setter.</i> <i>Some use of specialist terms, not always used appropriately.</i> <i>Information presented for most part in a structured format.</i> <i>Occasional errors in grammar, punctuation and spelling.</i></p> <p>Range of points adequately made with some relationship to the Trendsetter, with explanations and some justification</p> <p>Level 1 (1 to 2 marks) <i>Some understanding of the influence of the Trend Setter</i> <i>Little or no use of specialist terms.</i> <i>Answers ambiguous or disorganized.</i> <i>Errors of grammar, punctuation and spelling.</i> Limited range of points made with some relation to the Trendsetter and with limited justification</p>	6	<p>Answer space for this question covers two pages. Examiners must ensure that the entire scoris screen is checked for creditable points.</p> <p>Continuous prose – question is marked for quality of written communication.</p> <p>Only <u>one</u> Trend Setter must be referred to.</p> <p>If the answer relates only to the Iconic product then only award Level 1</p> <p>There is no credit for mention of the Trendsetter by name or the name of the Iconic Product, as these are given in the question.</p> <p>Bullet points or list/sequence of discrete points maximum of 2 marks</p> <p>Typical connectives that may be used to link points of discussion: so that, because, therefore, however, although, but, consequently, alternatively, whenever, besides, moreover, since, whereas, despite.</p>

Question	Answer	Marks	Guidance
	<p>(b) Content of answer refers to creditable points about the influence of the Iconic Product with reference to aesthetics and/technology. These may be discrete points referring to different aspects of the Iconic Product, or they may be linked points that discuss, explain, exemplify, qualify or describe one aspect of the impact or influence.</p> <p>Answers must relate to what was so different about the Iconic Product and or why the Iconic Product has been so influential.</p>		<p>Quality of written communication is not assessed in this part of Question 4.</p> <p>This can be a different Iconic Product to that of the Trendsetter chosen in part (a).</p> <p>There is no credit for mention of the Trendsetter by name or the name of the Iconic Product, as these are given in the question.</p> <p>Some answers may provide more than two creditable points for each or either reason. Credit the points wherever they are presented.</p> <p>Typical connectives that may be used to link points of discussion: so that, because, therefore, however, although, but, consequently, alternatively, whenever, besides, moreover, since, whereas, despite.</p>
		4 x 1	
		TOTAL	

4	(a) (b)	<p>OPTION 1 (a)Ikea</p> <ul style="list-style-type: none"> • The firm is known for the attention it gives to cost control, operational details and continuous product development, allowing it to lower its prices by an average of two to three per cent over the decade to 2010, while continuing its global expansion. • Rather than being sold pre-assembled, much of IKEA's furniture is designed to be self-assembled. • Costs reduced by use of packaging by not shipping air; the company implements economies of scale, capturing material streams and creating manufacturing processes that hold costs and resource use down, such as the extensive use of MDF. • Notable designs: the comfortable armchair POEM made of laminated wood, POÄNG, the ÖGLA cafe chair made of composite plastic for a modern look, the BILLY bookcase (1979) • They are often designed in a one-way layout, leading customers counter clockwise along what IKEA calls "the long natural way" designed to encourage the customer to see the store in its entirety • Scandinavian design style, timeless appeal • A sustainable company, life cycle, products should be flat-packed so that more items can be shipped at once; products should also be easier to dismantle and recycle. • Wood and cotton are two of IKEA's most important manufacturing products, the company works with environmentally friendly forests and cotton, excessive use of chemicals and water is avoided. 	6 4	<p>OPTION 1 (b)</p> <p>Flat Pack Furniture</p> <p>Flat Pack furniture was first invented by Gillis Lundgren, who was a Swedish draughtsman. Lundgren developed the idea when he needed to fit a table into his car. According to reports, Lundgren broke the legs off his table so he could fit it in the car and then reassembled the table at home. He then discussed the idea with his employers at IKEA. The company later built its entire business around the concept, launching its first piece in 1956</p> <p>Flat pack furniture is popular among consumers that wish to save money on their furniture purchases by assembling the product on their own and no need for delivery cost. In addition to saving the consumer money, flat pack furniture is generally simple to assemble and requires only the use of simple tools.</p> <p>Manufacturers/Retailers benefit from selling ready-to-assemble furniture because furniture that is already assembled tends to be bulky and more expensive to store and to deliver. Since the furniture does not need to be assembled in the factory, ready-to-assemble furniture is also less expensive for the merchant to purchase. Due to these many factors, selling flat pack furniture is a more cost effective method of conducting business.</p> <p>The design allows automated manufacturing methods to be used reducing cost in production. Use of manufactured boards and sustainable forestry has influenced the design of other furniture products.</p>
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4	(a) (b)	<p>OPTION 2 (a)</p> <p>Levi Strauss & Co</p> <ul style="list-style-type: none"> • 1872 invented rivet for the pocket corners on men’s pants to make them stronger. • Levi Strauss & Jacob Davis are granted a patent on the process of riveting pants by the U.S. Patent and Trademark Office on May 20. It is patent number 139,121 and this is the invention of the blue jean. • The pants – now just called “overalls” - now have two back pockets; this additional pocket was added due to consumer requests or changes in men’s fashions at the time. • In 1936 The red Tab is first placed onto the right back pocket of the overalls. The word “Levi’s” is stitched in white in all capital letters on one side only. • The Tab is created to differentiate Levi’s® overalls from the many competitors in the marketplace who were using dark denim an Arcuate stitch. 	6 4	<p>OPTION 2 (b)</p> <p>Levi 501 Jeans</p> <p>The Levi 501 denim jean, whose design was originally developed by Levi Strauss in the USA in around 1872, has become the world's most successful manufactured article of clothing. First conceived as a sturdy working garment for miners in California</p> <p>It took the 1950s and the Hollywood image of the rebel, personified by James Dean, to transform Levi's 501 from a utilitarian garment to one with symbolic power.</p> <p>James Dean added a white undershirt and a black leather jacket, giving his Levi's 501s a slouchy cool.</p> <p>Others such as Jack Nicholson and Elvis Presley took their cue from this image and donned Levi's 501s to express their questioning of authority. It wasn't long before teenagers embraced the style. By 1960, the Levi Strauss corporation had dropped the word overalls from their advertising and were using the word jeans.</p> <p>The 501 has trademark rivets, stitches, tags</p> <p>The 501 success rests partly on the charisma associated with their legendary American roots, but also on their practicality as a versatile washable garment whose appearance actually improves with age.</p>
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4	(a) (b)	<p>OPTION 3 (a) Integrated Circuits</p> <ul style="list-style-type: none"> • Integrated circuits (ICs) are also called silicon chips or microchips. A Basic 555 timer circuits ranging to complex PIC Microcontroller circuits and computer processors (CPUs) are based on the use of integrated circuits. • A typical integrated circuit package is very small. It would easily fit on the end of a finger. A 555 timer only has 8 pins, four on each side. However, even the larger 19 pin ICs are small enough to fit very easily in the palm of the hand, if not on the end of a finger tip. • Integrated circuits are composed hundreds, thousands and even hundreds of thousands of electronic components. These are formed on interlocking layers / wafers of silicon making it possible to create small individual electronic components. • Integrated circuits can be found in almost every modern electrical device; such as computers, cars, television sets, CD players, cell phones • ICs were made possible by experimental discoveries showing that semiconductor devices could perform the functions of vacuum tubes and by mid-20th-century technology advancements in semiconductor device fabrication. The integration of large numbers of tiny transistors into a small chip was an enormous improvement over the manual assembly of circuits using discrete electronic components. • The integrated circuits mass production capability, reliability, and building-block approach to circuit design ensured the rapid adoption of standardized Integrated Circuits in place of designs using discrete transistors. 	6 4	<p>OPTION 3 (b)</p> <p>555 Timer</p> <p>Most well known of all integrated circuits, has been around since the 1970s.</p> <p>This IC is packaged in an 8-pin DIL case.</p> <p>Can be used as a monostable and an astable timer.</p> <p>A monostable has one stable state, when its output is zero. It is possible to change this state for a set period of time, so the output is ON.</p> <p>An astable timer continually changes from one state to another, turning ON and OFF.</p> <p>The length of time the circuit is ON is controlled by the value of the resistor and capacitor. Larger values will give a longer timing period.</p> <p>The 555 is not suitable for timing periods of over 10 minutes.</p> <p>Applications include: kitchen/egg timers, lights on timers (internal car lights),</p> <p>Reliable circuit with the ability to withstand quite rough treatment.</p>
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4	(a) (b)	<p>OPTION 4 (a)</p> <p>Cadburys</p> <ul style="list-style-type: none"> • John Cadbury introduced a solid chocolate in 1849 • In 1866 John's son George brought back a cocoa press from Holland. It had been made by Coenradd Johannes van Houten, a manufacturer who'd been looking for a way of reducing cocoa's high fat content – and his van Houten press did just that. • With some of the cocoa butter removed, suddenly cocoa and drinking chocolate was much tastier. Flour was no longer needed, and Cadbury launched a new product 'Cocoa Essence', advertised as 'Absolutely pure, therefore Best'. • In 1905 Cadbury launched the world-famous Dairy Milk bar. • Cadbury bought Frys in 1919 and the company grew, producing chocolate on an industrial scale that could be enjoyed by everyone. Other big manufacturers appeared: Mars and Hershey in America, Nestlé and Lindt in Switzerland, Rowntree in the UK. • Cadbury and other manufacturers started making 'Countlines' – bars with other ingredients like nougat, wafer and honeycomb, covered in chocolate –Crunchie and Double Decker. • During the Second World War, different manufacturers worked together, so for instance if a huge Government order came in that couldn't be filled, Nestlé would make a Cadbury's bar or vice versa. Cadbury Dairy Milk disappeared during the war years, because there was no fresh milk available – instead there was Ration Chocolate made with powdered milk. 	6 4	<p>OPTION 4 (b)</p> <p>Cadburys Dairy Milk</p> <p>In June 1905, Cadbury launched its first Dairy Milk bar, with a higher proportion of milk than previous chocolate bars, and it became the company's best selling product by 1913. George Cadbury Junior, responsible for the development of the bar, has said "All sorts of names were suggested: Highland Milk, Jersey and Dairy Maid. But when a customer's daughter suggested Dairy Milk, the name stuck.</p> <p>Fruit and Nut was introduced as part of the Dairy Milk line in 1928, soon followed by Whole Nut in 1933.</p> <p>Cadbury's was the brand leader in the United Kingdom.</p> <p>In 1928, Cadbury's introduced the "glass and a half" slogan to accompany the Dairy Milk bar, to advertise the bar's higher milk content. CDM gave an improved taste over previous chocolate products.</p> <p>Dairy Milk has always tried to keep a strong association with milk, with slogans such as "a glass and a half of full cream milk in every half pound" and advertisements that feature a glass of milk pouring out and forming the bar.</p> <p>Today Dairy Milk is made with a glass and a half of fresh milk from the British isles, and with Fairtrade Ghanaian cocoa beans, CDM remains one of the UK's top chocolate brands and is worth more than £360 million. It is estimated that more than 65% of the British population will buy CDM at least once a year. It is also an international favourite, enjoyed by millions of people across 30 countries.</p>
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Question		Answer	Marks	Guidance
4	(a) (b)	<p>OPTION 5 (a)</p> <p>John Pasche</p> <ul style="list-style-type: none"> • John Pasche is an art designer, most famous for designing the "Tongue and Lip Design" logo for the popular band The Rolling Stones • John Pasche designed four tour posters for the Rolling Stones between 1970 and 1974 and also worked for other reputed artists, such as Paul McCartney, The Who, The Stranglers and Dr Feelgood. • Pasche has done considerable design work for United Artists and Chrysalis Records. • John Pasche was Creative Director of London's Southbank Centre • He continues to work as a freelance designer, producing not only prints of his work but also limited edition canvases • Pasche has won many awards at the D&AD Awards, Music Week and NME Awards, and his works have been a huge contribution to the visual arts and music cultures of the past four decades. 	6 4	<p>OPTION 5 (b)</p> <p>Rolling Stones Tongue & Lips Logo</p> <p>For The Rolling Stones, Pasche designed the "Tongue and Lip Design" logo in 1971, which was originally reproduced on the Sticky Fingers album.</p> <p>The logo is one of the most visually dynamic and innovative logos ever created.</p> <p>The design concept for the tongue was to represent the band's anti-authoritarian attitude, and Mick Jagger's mouth</p> <p>It is perhaps the most recognisable logo in the history of pop music, and it has been a symbol of brash rebellion for almost 40 years</p> <p>In August 2008, the design was voted the greatest band logo of all time in an online poll. In what was perhaps one of the first cases of rock brand marketing, Jagger reportedly approached the Royal College of Art in 1969 looking to commission images for the band. Pasche designed the logo and ended up working for the Stones from 1970 to 1974. In 2008 the V&A paid slightly over £50,000 at auction for the original drawings of the symbol,</p>
		TOTAL	10	

Question		Answer	Marks	Guidance
5	(a)	<p>Specification Specification contains statements that could relate to any item. (0) Specification that may be vague/incomplete or repeated from the question(1) Specification that gives limited design requirements(2) Adequate specification that gives some key design requirements (3) Detailed specification gives key design requirements (4)</p>	4	<p>“It must be colourful” VAGUE</p> <p>“It must use a range of bright colours” ADEQUATE</p> <p>“It must use bright colours such as orange and turquoise” DETAILED</p>

	(b)	<p>Initial ideas</p> <p>Only one sketched solution with no accompanying notes (1)</p> <p>One sketched solution with accompanying notes (2)</p> <p>Two or more solutions with no accompanying notes (3)</p> <p>Two or more solutions with accompanying notes (4)</p> <p>A range of different ideas that broadly address the specification points (5)</p> <p>A range of different ideas showing a creative approach that fully address the specification points (6)</p>	6	<p>Marks can be awarded for addressing the specification points irrespective of the quality of the candidate's specification points given in (a).</p> <p>One word labels can identify and name, features on a sketch: e.g. base, aluminium, pattern, seam.</p> <p>Two and three word labels can qualify the feature: e.g. handle of wood, stable base.</p> <p>Notes are complete statements that can explain, justify, exemplify and quantify the feature: e.g. 3mm red acrylic will be used for the sides and top.</p> <p>Dimensions on a drawing or sizes stated, and weights or quantities of ingredients come under the heading of notes.</p> <p>Different ideas refers to:</p> <ol style="list-style-type: none"> 1. whole solutions or parts of a solution. 2. conceptually different thinking. 3. not just variations on a theme. <p>Addressing specification points:</p> <ol style="list-style-type: none"> 1. may be explicitly evidenced in the notes. 2. implicitly evidenced in the idea. 3. specification points need to be evidenced only once each, in any of the notes or the ideas. <p>Creative approach to designing is judged in the context of an examination situation with strictly limited time. Do the ideas impress you enough for just ten minutes work from a 15 year old?</p>
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	(c)	<p>Development of ideas – <u>must</u> reflect the product focus</p> <p>Presents limited improvements/developments of ideas with little if any consideration of materials and construction. Developed idea does not fully address the design need. (0-2 Marks)</p> <p>Presents some improvements/developments of ideas with some consideration of materials and construction. Developed idea addresses some requirements of the design need. (3-4 Marks)</p> <p>Presents detailed improvements/developments of ideas with thorough consideration of materials and construction. Developed idea fully meets the requirements of the design need. (5-6 Marks)</p>	6	<p>In this part candidates must address the requirements of the “<i>design need in the situation</i>”.</p> <p>If both requirements of the design need are not met the maximum available is 3 marks.</p> <ol style="list-style-type: none"> 1. Multi function coffee table and Flat Pack. 2. Denim garment and toddlers. 3. Electronic and night light. 4. Novelty celebration cake and chocolate. 5. Pop Up Card and Rock music theme <p>For night light, a system (circuit or block diagram) must be shown. Where there is clear development without a system design up to 3 marks can be awarded.</p> <p><i>Candidates should show any (not all) relevant details for manufacture:</i></p> <ul style="list-style-type: none"> • <i>materials/ingredients/components.</i> • <i>sizes / dimensions / quantities,</i> • <i>methods / joining / mixing techniques,</i> • <i>tools / equipment,</i> <p>To obtain full marks candidates must consider their own specification.</p>
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	(d)	<p>Evaluation contains vague statements that could relate to any item. (0 marks)</p> <p>Limited evaluation of how their design meets their specification at a superficial level. (1 Mark)</p> <p>Reasonable evaluation considering how their design meets the specification. Most specification points addressed. (2-3 Marks)</p> <p>Detailed evaluation of how their design meets their specification. Fully addresses all specification points. (4 Marks)</p>	4	<p>Accept justified points related to the candidates' own specification, even if not rewarded in 5(a).</p>
		TOTAL	20	

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