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# **GCSE MARKING SCHEME**

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**SUMMER 2018**

**DESIGN & TECHNOLOGY - GRAPHIC PRODUCTS  
4101/01**

## **INTRODUCTION**

This marking scheme was used by WJEC for the 2018 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

# GCSE DESIGN & TECHNOLOGY - GRAPHIC PRODUCTS

## SUMMER 2018 MARK SCHEME

Question			On paper	Question Totals	Overall TOTAL
1	(a)				
		(i) No answer or answers that do not match the mark scheme. Match the shape of the sleeping bag or the company's products.	0 1	1	1
		(ii) No answer or answers that do not match the mark scheme. Appropriate answer with appropriate detail. Squarer shape is cheaper to produce and the parents may be able to place it on any flat surface as it has feet.  Some detail. To make it easier for the thermometer to be used anywhere in the room, e.g. next to where the baby sleeps. Holds more information.	0 2 1	2 2 1	3
	(b)	(i) No answer or the answer does not match mark scheme Appropriate answer with appropriate detail, e.g. medium weight duplex board is strong enough to resist damage during typical use and you are able to print on both sides allowing graphics to be visible. Medium weight card can also accept folding.  Appropriate statement but with little detail, e.g. medium weight duplex board can be printed on both sides.  (ii) Appropriate answer with appropriate detail, e.g. thermochromic film is a smart material that senses the temperature of the room and gives an accurate display.  Appropriate statement but with little detail, e.g. thermochromic film gives the room temperature.	0 2 1 2 1	2 2	7
	(c)	(i) No answer or the answer does not match mark scheme Good answers could include references to: <ul style="list-style-type: none"> <li>• Parents feeling more secure because of the thermometer.</li> <li>• Informative.</li> <li>• Allows parents to choose the right sleeping bag.</li> </ul> Appropriate answer with some detail, e.g. parents will feel more secure about the temperature of the room allowing them to monitor the room temperature easily and pick the appropriate sleeping bag for the room temperature therefore keeping the baby safe.  Appropriate answer with some detail, e.g. allows parents to pick the correct sleeping bag for the room temperature and allows them to see any changes.  Appropriate statement but with little detail, e.g. allows parents to pick the right sleeping bag.	0 3 2 1	3	10

Question			On paper	Question Totals	Overall TOTAL
	(ii)	<p>No answer or the answer does not match mark scheme Good answers could include references to:</p> <ul style="list-style-type: none"> <li>• Building customer loyalty.</li> <li>• Allows the company to advertise their products.</li> <li>• May make some parents buy the range of sleeping bags and boost product sales.</li> </ul> <p>Appropriate answer with some detail, e.g. including free products with sales allows customers to build brand loyalty. It also helps to make parents aware of other products.</p> <p>Appropriate statement but with little detail, e.g. company can sell more products.</p>	0  2  1	 2	 12
	(d) (i)	<p>No answer or answers that do not match the mark scheme Only appropriate answers are <b>12-15 degrees Celsius / 54-59 degrees Fahrenheit.</b></p>	0 1	1	13
	(ii)	<p>No answer or answers that do not match the mark scheme Answer that is <b>864mm</b> without working – can be awarded 1 mark.</p> <p>Answer that is correct and shows appropriate working – can be awarded 2 marks.</p> <p>Size of sleeping bag increases 20% 20% of 720=144 720+144=864mm 720 x 1.2 = 864mm 720 x .20=144 720x144=864</p> <p>20/100x720=144 720=144=864</p>	0 1  2	  2	  15
					<b>15</b>
					<b>15</b>

Question				On paper	Question Totals	Overall TOTAL	
2.	(a)	(i)	No answer or answers that do not match the mark scheme. 1 <sup>st</sup> blank: Repair. 2 <sup>nd</sup> blank: Refuse.	0 1 1	2	2	
		(ii)	No answer or answers that do not match the mark scheme Good answers could include reference to: <ul style="list-style-type: none"> <li>• Designing products that are more sustainable.</li> <li>• Makes them consider reusing components.</li> <li>• Being more ethical in their approach to design.</li> </ul> Appropriate answer with appropriate detail, e.g. helps the designer think about more sustainable issues. Makes them consider issues like reusing components or making the design smaller. Helps designers think of environmental impact of the product. <p>Appropriate statement but with little detail, e.g. helps designers think about the overall waste or size of the product.</p>	0  2  1	2	4	
		(iii)	No answer or answers that do not match the mark scheme Appropriate answer with appropriate detail, e.g. consumers are more informed of the environmental impact of the products they buy and are increasingly concerned with buying products that are greener or more helpful to the environment. Manufacturers are increasingly playing on the environmentally friendly nature of their product. <p>Appropriate statement but with little detail, e.g. because customers want to buy the best product for the environment.</p>	0  2  1	2	6	
	(b)	(i)	No answer or answers that do not match the mark scheme. Candidates circled middle image.	0 1	1	7	
		(ii)	No answer or answers that do not match the mark scheme. Appropriate answers could make reference to the following list: Candidates can gain one mark for each of the following they mention: <ul style="list-style-type: none"> <li>• Recycling or littering logos and symbols.</li> <li>• Warnings on some packaging, e.g. cigarettes.</li> <li>• Food labelling information.</li> <li>• Medical packaging information.</li> <li>• Packaging materials / sustainable.</li> <li>• Packaging size.</li> </ul>	0 3 2 1	3	10	
						10	25

Question			On paper	Question Totals	Overall TOTAL
3.	(a)	No answer or answers that do not match the mark scheme 1 <sup>st</sup> blank – Saul Bass. 2 <sup>nd</sup> blank – Neville Brody.	0 1 1	2	2
	(b)	MARK DESCRIPTION OF DESIGNER'S WORK and influence No answer or no relevant description of the designer's range of work.	0		
		Some simple description of the style and influence of the work of Saul Bass.  No understanding of how the designer has influenced others. Quality of Written Communication is limited, presenting material with limited coherence, many errors of grammar, punctuation and spelling <b>Award 1-2 marks</b>	1-2		
		Description of the style and influence of Saul Bass. Little if any understanding of how the designer has influenced others. Quality of Written Communication is basic, presenting occasionally appropriate material with some coherence, some errors of grammar, punctuation and spelling <b>Award 3-4 marks</b>	3-4	8	10
		Description of the style and influence of Saul Bass. Some understanding shown of how the designer has influenced others. Candidates may make reference to a specific designer that has been influenced by Bass. Quality of Written Communication is good, presenting mainly appropriate material in a coherent manner, few errors of grammar, punctuation and spelling <b>Award 5-6 marks</b>	5-6		
		Detailed description of the style and influence of Saul Bass. Clear understanding shown of how the designer has influenced others. Candidates may name a specific designer that has been influenced and draw reference to where the influences can be found culturally today. Quality of Written Communication is excellent, presenting wholly appropriate material in a coherent and logical manner, hardly any errors of grammar, punctuation and spelling <b>Award 7-8 marks</b>	7-8		
					10
					35

Question				On paper	Question Totals	Overall TOTAL
4.	(a)	(i)	No answer or answers that do not match the mark scheme Only acceptable answer: <ul style="list-style-type: none"> <li>Initial Ideas.</li> </ul>	0 1	1	1
		(ii)	No answer or answers that do not match the mark scheme Appropriate answers, 1 mark for mentioning each of the following <ul style="list-style-type: none"> <li>Size.</li> <li>Timescale.</li> <li>Materials.</li> <li>Target market.</li> <li>Aesthetic considerations.</li> <li>Ergonomics and Anthropometrics.</li> <li>Or any other reasonable suggestion for a design specification.</li> <li>ACCESSFM.</li> </ul>	0 1 1	2	3
	(b)	(i)	No answer or the answer does not explain how the two are linked.			
			Answers could include mention of: <ul style="list-style-type: none"> <li>Ergonomics.</li> <li>Disabilities.</li> <li>Special Circumstances.</li> </ul> <p>Appropriate answer with appropriate detail, e.g. it is impossible for a designer to know exactly who is going to use the product and for that product to suit every single user. That is why ergonomic and anthropometric data is used to find the best fit and consideration has to be given to people with disabilities or special circumstances.</p> <p>Appropriate statement but with little detail, e.g. designers need to consider everyone so more people can use the product.</p>	2 1	2	5
		(ii)	No answer or answers that do not match the mark scheme Appropriate answer with appropriate detail, e.g. the design specification will be used in conjunction with the evaluation so that full product testing can be carried out and a good design specification will provide the criteria for a thorough evaluation to take place.  Appropriate statement but with little detail, e.g. the design specification will be used to carry out an evaluation.	0 2 1	2	7

Question			On paper	Question Totals	Overall TOTAL	
(c)	(i)	No answer or answers that do not match the Mark Scheme. Any logo that is more than two colours.	0	3	10	
		A well-drawn logo that is modern and minimalist and that is only two colours and very appropriate for the task.	3			
		A well-drawn logo that may not be fully appropriate for the purpose but may be modern or minimalist and is only two colours or a logo that conveys the ethos of the hotel but is overly complicated.	2			
		A basic or poorly drawn logo that does not match the ethos of the hotel or maybe very complex, old fashioned or unclear.	1			
	(ii)	No answer or answers that do not match the Mark Scheme or any icons that use text.	0			
		<p><b>Each icon should be considered individually. A maximum of 5 marks can be awarded for each icon. Maximum 3 marks for design (ii) and 2 marks for presentation (iii).</b></p> <p><b>DESIGN</b></p> <p>Very clear icon allowing the user to fully understand the purpose of the icon or the direction of the facility. Design is modern and minimalist, luxurious looking and fully in keeping with the logo and hotel ethos. No words are present and its icon is easy to follow at a glance.</p> <p>Design for the icons is understandable allowing the user to follow the direction of the icon. Design will not be as clear as the previous category and may be overly complicated or not fully in keeping with hotel logo and ethos, but needs no explanation.</p> <p>A design is present but is difficult to follow or understand and does not fit the ethos of the hotel.</p>	3 2 1	9	19	
	(iii)	<p>No answer or answers that do not match the mark scheme</p> <p><b>PRESENTATION</b></p> <p>Good quality drawing and presentation skills. Colour may be used but is not necessary.</p> <p>Adequate or poor levels of drawing and presentation. Most aspects of the design are understandable.</p> <p>Drawing skills are very basic. Presentation is completely inappropriate.</p>	0 2 1 0	6	25	
					<b>25</b>	<b>60</b>



Question				On paper	Question Totals	Section TOTAL
5.	(a)	(i)	No answer or answers that do not match the Mark Scheme.	0	3	3
			Only acceptable answers : Pre-press – Colour separation.	1		
			On-press – Offset lithography. Finishing – Binding.	1 1		
		(ii)	No answer or answers that do not match the Mark Scheme.	0	2	5
			Only appropriate answers, 1 mark for the correct answer from the following list up to a maximum of 2 marks:	1		
			<ul style="list-style-type: none"> <li>• One off production.</li> <li>• Batch production.</li> <li>• Mass production.</li> </ul>	1		
	(b)	(i)	No answer or answers that do not match the Mark Scheme.	0	1	6
			Only acceptable answers - Registration mark. Registration symbol.	1		
		(ii)	No answer or answers that do not match the Mark Scheme.	0	2	8
			Appropriate answer with appropriate detail, e.g. the printing plates have not been aligned properly during the printing process and each colour has been printed in a slightly different place meaning the image is blurred.	2		
			Appropriate answer lacking detail, e.g. printing plates have printed in the wrong place.	1		
	(c)		No answer or answers that do not match the Mark Scheme.	0		
			Appropriate answer with appropriate detail, e.g. debossing is a finishing process that allows the designer or printer to sink parts of a design below the finished surface of a product.	2		
			Appropriate answer lacking detail, e.g. make dents in part of a design, i.e. book cover.	1		
						<b>10</b>
						<b>70</b>

Question				On paper	Question Totals	Section TOTAL
6.	(a)	(i)	No answer or answers that do not match the Mark Scheme. Only acceptable answer - Foam core board.	0 1	1	1
		(ii)	No answer or answers that do not match the Mark Scheme. Only appropriate answer – Lamination or By laminating it.	0 1	1	2
	(b)	(i)	No answer or answers that do not match the Mark Scheme.  1 <sup>st</sup> blank- Analogous / harmony. 2 <sup>nd</sup> blank- Complimentary. 3 <sup>rd</sup> blank- Triadic.	0  1 1 1	3	5
		(ii)	No answer or answers that do not match the Mark Scheme.  Appropriate answer with appropriate detail. A tint can be any pure colour made lighter by adding white and a tone can be any pure colour altered by adding grey.  Appropriate answer but lacking detail. Tints add white, tones add grey.	0  2  1	2	7
	(c)	(i)	No answer or answers that do not match the Mark Scheme. 1 <sup>st</sup> blank- Sans serif. 2 <sup>nd</sup> blank- Script. 3 <sup>rd</sup> blank- Serif.	0 1 1 1	3	10
		(ii)	No answer or answers that do not match the Mark Scheme.	0		
			Good answers can make reference to: <ul style="list-style-type: none"> <li>• Old style fonts being curved.</li> <li>• Always being serifs.</li> <li>• That lean slightly off the vertical.</li> <li>• Have big contrast between the thick and thin elements of the font.</li> <li>• Serifs almost always being bracketed and angled.</li> </ul> Appropriate answer with appropriate detail, e.g. an old style font will be thick in parts and thin in places and will lean slightly off the vertical with angled serifs.  Appropriate answer with little detail, e.g. old style fonts are serif fonts that can be thick and thin.	2  1	2	12

Question			On paper	Question Totals	Overall TOTAL	
	(d)	<p>No answer or answers that do not match the mark scheme</p> <p>Appropriate answer with appropriate detail, e.g. Microencapsulation means that small elements of gas, solids or liquids are impregnated into graphical material such as card that allow the user to access them should they scratch the surface or fold in the correct place, e.g. a fragrance enveloped in a card – scratch and sniff technology.</p> <p>Appropriate answer with some detail, e.g. Microencapsulation is trapping liquids or gases in a card for example scratch and sniff.</p> <p>Appropriate answer with little detail, e.g. scratch and sniff technology.</p>	0 3  2  1	3	15	
					<b>15</b>	<b>85</b>

Question				On paper	Question Totals	Section TOTAL
7.	(a)	(i)	No answer or answers that do not match the Mark Scheme.	0		
			1 <sup>st</sup> blank – Set square / 60/30 set square.	1	3	3
			2 <sup>nd</sup> blank – Compass cutter.	1		
	3 <sup>rd</sup> blank - Fine liner.	1				
	(b)	(i)	No answer or answers that do not match the Mark Scheme.	0		
			Die cutter – Appropriate answer with appropriate detail, e.g. so the manufacturer could cut out complex shapes like the pieces on the front of the card quickly, easily and safely and manufacture them in bulk.	2	4	7
			Appropriate answer with little detail, e.g. to cut out lots of the pieces on the front	1		
			Bone folder – Appropriate answer with appropriate detail, e.g. it is the most appropriate tool to score the fold lines without marking or cutting the material ensuring a clean, crisp fold.	2		
			Appropriate answer with little detail, e.g. to score the fold line without cutting the material.	1		
		(ii)	No answer or answers that do not match the Mark Scheme.	0		
			Appropriate answer with appropriate detail, e.g. a jig can be used when manufacturing in large quantities to make forming and shaping materials quicker without the need for measuring each individual piece.	2	2	9
			Appropriate answer with little detail, e.g. a designer would use a jig to make and form materials.	1		
	(c)	(i)	No answer or answers that do not match the mark scheme.	0		
			1 <sup>st</sup> blank – Vector drawing software / Any appropriate named software.	1	2	11
			2 <sup>nd</sup> blank – Image manipulation software / Any appropriate named software.	1		

Question			On paper	Question Totals	Overall TOTAL
	(ii)	<p>No answer or answers that do not match the Mark Scheme.</p> <p>Good answers should include reference to:</p> <ul style="list-style-type: none"> <li>• Custom colour palettes.</li> <li>• Using gradients and fill tools.</li> <li>• Using transparency tools.</li> <li>• Altering and refining custom colours using colour gamuts.</li> </ul> <p>Appropriate answer with appropriate detail, e.g. a designer can create different tints and tones or shades from any colour they select to create custom colours that can be saved in custom palettes to be used again. They can be used in gradient fills and their transparency can be altered to make them more or less opaque.</p> <p>Appropriate answer with some detail, e.g. a designer can manipulate colours by using the colour spectrum and can save them in a custom palette to use again.</p> <p>Appropriate answer with little detail, e.g. a designer can change any colour they pick by using a colour wheel.</p>	0  3  2  1	3	14
	(d) (i)	<p>No answer or answers that do not match the Mark Scheme.</p> <p>Appropriate answer with appropriate detail, e.g. levels can refer to anything that allows a designer to alter or manipulate e.g. sharpness, brightness, contrast, colour, hue. By altering any of these the designer can alter the image they're working on or the design.</p> <p>Appropriate answer with some detail, e.g. by altering levels, i.e. saturation – a designer can change the appearance of the design.</p> <p>Appropriate answer with little detail, e.g. a designer can change the levels of colour or brightness in a design</p>	0  3  2  1	3	17
	(ii)	<p>No answer or answers that do not match the Mark Scheme.</p>	0		
		<p>Appropriate answer with appropriate detail, e.g. a designer could use image manipulation software to alter the resolution or DPI of an image thus making it clearer to the viewer. Choosing the correct resolution is important when choosing how the image will be viewed, e.g. on a website.</p> <p>Appropriate answer with some detail, e.g. a designer could increase the resolution of an image to make it clearer or sharper.</p> <p>Appropriate answer with little detail, e.g. alter the resolution.</p>	3  2  1	3	20
				20	105

Question				On paper	Question Totals	Section TOTAL
8.	(a)	(i)	No answer or answers that do not match the Mark Scheme. Isometric drawing= bottom image. Orthographic drawing = 2 <sup>nd</sup> image. Cutaway drawing = top image.	0 1 1 1	3	3
		(ii)	No answer or answers that do not match the Mark Scheme. Only appropriate answer. 1 <sup>st</sup> blank –Gantt chart. 2 <sup>nd</sup> blank – Story board.	0 1 1	2	5
(b)	(i)		No answer or answers that do not match the Mark Scheme	0	6	11
			All horizontal and vertical lines need to be square. All corners should have a 15mm round with construction marks. The symbol should be in the middle of the square and should be exactly 6mm thick. The symbol can have square ends. All lines should be accurate with no mistakes.	6		
			Button is well drawn with only 1 or 2 minor mistakes. Construction lines should be present and symbols should be accurate to within 1mm and drawn in the middle of the button.	5		
			The button has mistakes, but is neatly drawn. The rounded corners may be missing their target slightly. The symbol may not be the correct weight or some lines may be slightly off vertical or horizontal.	4		
			The drawing will have errors in some important elements. Some of the elements may be missing. Some lines may be off vertical or horizontal, but overall, it should be recognisable.	3		
			The drawing will have major errors. Half or more of the lines will be out of square. Major elements will be missing but the symbol and at least one rounded corner will be attempted.	2		
			Basic drawing. Nearly all elements missing, e.g. rounded corners and symbol. Drawing will resemble a basic square.	1		
No answers or answers that don't match the mark scheme. Unrecognisable or incorrect drawing	0					
	(ii)		Unrecognisable or incorrect solution	0		
(c)			Correct shape drawn. Sizes are in proportion. No mistakes. Scale is correct. Neatly drawn and accurate.	4	4	15
			Drawing is mostly correct but will have mistakes. Neatly drawn, may have some issues with proportion or scale.	3		
			Drawing will have significant errors. Scale and proportions may be incorrect. Some lines may not go back to the vanishing point but the shape is mostly recognisable.	2		
			Basic shape drawn, many errors and basic elements. Perspective may be unrecognisable	1		
					15	120