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Paper Reference(s)

XXXX/XX

Edexcel GCSE

Manufacturing (Double Award)

Unit 2: Manufactured Products

Sample Controlled Assessment Tasks and
Grids

Information

Please see the contents of this document.

Controlled Assessment task

Unit 2: Manufactured Products

For this task you will manufacture a quantity of one product, from a given product specification and production plan.

In order to complete this task you will undertake the following activities:

Activities		Suggested times
Team Work	a. Work as part of an effective team	Evidenced throughout
Plan	b. Produce a schedule for manufacture	3 – 5 hours
Make	c. Prepare and use materials	18 - 25 hours
	d. Prepare and use tools, equipment and machinery	
	e. Manufacture products to meet requirements	
	f. Monitor production	
	g. Use quality control techniques	
Review and modify	h. Modify Production plan and schedule for manufacture	2 – 3 hours

Note: The times given are suggested times only and may vary depending on local centre/employer needs and the manufacturing sector being studied. For example food products are likely to be prepared in significantly less time than products from other sectors, although planning activities are likely to take the same time for each manufacturing sector.

Suggested products are:

1. Food products, e.g.

- High energy snack/meal for outdoor activities
- Dessert for sale at a chain of petrol stations
- A batch of twelve cakes
- A batch of 40 biscuits.

2. Textile Products, e.g.

- Laptop bag for sale at school open-day
- A protective MP3 carry case
- A small batch (8) of reusable carrier bags
- A batch of dolls clothes for use in a crèche.

3. Printing and board Products, e.g.

- Flat pack containers for specified products and markets
- Student information pack for entrants to 6th form college.
- A print run of a school magazine
- A batch of packaging for a product such as an Easter Egg

4. General manufacture, to include all aspects of resistant materials e.g.

- Name plate/desk tidy for use by teachers at options evenings/open days
- Flat pack furniture for a specified market

- A batch of pencil boxes
- Ice scrapers
- Electronic devices such as counters and alarms
- Metal work products such as bike stands or storage items
- A batch of identical toys using machine shop and electronic facilities.

The suggested products can be contextualised to suit local centre/employer needs or where access to particular resources may be an issue.

Controlled conditions

The preparation and production of students' work must take place under controlled conditions. Students will only be allowed to produce their products and their related portfolios during lesson time when supervised by a teacher or invigilator. Student's work must be collected in at the end of each lesson and handed back at the beginning of the next lesson.

Feedback control

Teachers are allowed to provide regular formative feedback throughout the creative design process. Student progression should be supported by the centre's own Assessment for Learning (AFL) strategies.

Demonstrations of practical activities are allowed in order to develop knowledge, understanding and skills and to identify health and safety issues relating to specific tools, equipment and processes.

Collaboration control

Where group-work occurs, evidence of individual contributions are clearly identified and recorded.

Resources

Access to resources is determined by those available to the centre.

Unit 2: Manufactured Products

Sections	Sub-sections	Marks	Level of response	Mark range
Team Work (6 marks)	a) Work as part of an effective team	6	<ul style="list-style-type: none"> Level of response not worthy of credit. 	0
			<ul style="list-style-type: none"> Contributed to the work of an effective team, and the student's success in meeting some targets. 	1 - 2
			<ul style="list-style-type: none"> Helped build an effective team, and the student's success in meeting key targets. 	3 - 4
			<ul style="list-style-type: none"> Played a leading role in ensuring that the team worked effectively and success in meeting all achievable targets. 	5 - 6
Plan (6 marks)	b) Produce a schedule for manufacture*	6	<ul style="list-style-type: none"> Level of response not worthy of credit. 	0
			<ul style="list-style-type: none"> Use of some details in a production plan and product specification and the development of an outline schedule for manufacture. 	1 - 2
			<ul style="list-style-type: none"> Use of the main information in a production plan and product specification and the development of a realistic schedule for manufacture. 	3 - 4
			<ul style="list-style-type: none"> Confident use of the main information in a production plan and the development of a detailed and effective schedule for manufacture. 	5 - 6

Sections	Sub-sections	Marks	Level of response	Mark range
Make (32 marks)	c) Prepare and use materials	6	<ul style="list-style-type: none"> Level of response not worthy of credit. 	0
			<ul style="list-style-type: none"> Preparation, with guidance, of materials and components, according to some relevant production criteria, using materials safely with some skill to make a product. 	1 – 2
			<ul style="list-style-type: none"> Preparation, with limited guidance, of materials and components, according to the main production criteria, using materials safely with skill to make a product. 	3 – 4
			<ul style="list-style-type: none"> Independent preparation of materials and components, according to all relevant production criteria, achieving optimum and safe use of materials when making a product. 	5 – 6
	d) Prepare and use tools, equipment and machinery	6	<ul style="list-style-type: none"> Level of response not worthy of credit. 	0
			<ul style="list-style-type: none"> Preparation, with guidance, of tools, equipment and machinery with some skill, using them safely with some accuracy to make a product. 	1 – 2
			<ul style="list-style-type: none"> Preparation, with limited guidance, of tools, equipment and machinery with skill, using them safely with accuracy and some skill to make a product. 	3 – 4
			<ul style="list-style-type: none"> Independent and precise preparation of tools, equipment and machinery, using them safely with accuracy and skill to make a product. 	5 – 6
	e) Manufacture products to meet requirements	8	<ul style="list-style-type: none"> Level of response not worthy of credit. 	0
			<ul style="list-style-type: none"> Safe manufacture of the product, to meet some client requirements and to conform to some quality standards required. 	1 – 2
			<ul style="list-style-type: none"> Safe manufacture of the product, to meet the main client requirements and to conform to the main quality standards required. 	3 – 5
			<ul style="list-style-type: none"> Safe manufacture of the product, to effectively meet the main client requirements and to consistently conform to the main quality standards required. 	6 – 8

Sections	Sub-sections	Marks	Level of response	Mark range
	f) Monitor production	6	• Level of response not worthy of credit.	0
			• Simple monitoring of production activities.	1 – 2
			• Monitoring and recording progress of manufacturing activities.	4 – 5
			• Detailed and consistent monitoring of production activities in order to maintain production.	5 – 6
	g) Use quality control techniques	6	• Level of response not worthy of credit.	0
			• use of a range of quality control techniques to monitor production and describe the causes of problems.	1 – 2
			• limited use of quality control techniques to monitor production and identify problems.	3 – 4
			• Use of objective quality control techniques to monitor production and explain how to prevent problems happening again.	5 – 6
Review and modify (6 marks)	h) Modify Production plan and schedule for manufacture	6	• Level of response not worthy of credit.	0
			• Modifications, some of which are relevant and lead to the improvement of some aspects of the production plan and schedule for manufacture in response to quality data.	1 – 2
			• Modifications, most of which are relevant and lead to the improvement of several aspects of the production plan and schedule for manufacture in response to quality data.	3 – 4
			• Modifications, all of which are relevant and lead to the improvement of significant aspects of the production plan and schedule for manufacture in response to quality data.	5 – 6
	Total marks:	50		50

* Opportunity for students to be assessed on Quality of Written Communication (strand (iii) — organise information clearly and coherently, using specialist vocabulary when appropriate).