

7.3 ASSESSMENT EVIDENCE FOR UNIT 2: MANUFACTURED PRODUCTS

<p>You need to produce evidence in your portfolio of the production of a batch of a product, manufactured by a team. The manufactured product must have at least three components/ingredients. Your portfolio must include:</p> <p>a evidence of a production plan, identifying the manufacturing processes and associated quality control [9 marks];</p> <p>b a schedule for manufacture, with the key features identified [7 marks];</p> <p>c a detailed description of the production technique and critical control points [9 marks];</p> <p>d an outline of team roles and effective team structure [10 marks];</p> <p>e a record of how you manufactured your product [15 marks].</p>				
A typical candidate at grades GG, FF, EE will:	A typical candidate at grades DD, CC, BB will:	A typical candidate at grades BB, AA, A*A* will:	Mark	Max
<p>a1 Describe a simple manufacturing process, using ICT as appropriate.</p> <p style="text-align: right;">0 1 2 3</p>	<p>a2 Produce a production plan that identifies the manufacturing processes and quality control.</p> <p style="text-align: right;">4 5 6</p>	<p>a3 Evaluate their production plan, in relation to manufacturing processes and quality control.</p> <p style="text-align: right;">7 8 9</p>		9
<p>b1 Describe the importance of accurate production planning and of meeting the product specification.</p> <p style="text-align: right;">0 1 2 3</p>	<p>b2 Identify in their production plan the schedule for manufacture and allocate roles to team members.</p> <p style="text-align: right;">4 5</p>	<p>b3 Evaluate their production plan in terms of how the schedule for manufacture could be improved and why particular roles were allocated to particular team members.</p> <p style="text-align: right;">6 7</p>		7

<p>c1 Identify key control points during manufacture and describe the importance of health, safety and hygiene.</p> <p style="text-align: right;">0 1 2 3 4</p>	<p>c2 Use quality control tests and carry out work with due regard to health, safety and hygiene, including reference to appropriate safety systems.</p> <p style="text-align: right;">5 6 7</p>	<p>c3 Explain and justify how the production planning and scheduling could be improved to encompass total quality management and appropriate safety systems.</p> <p style="text-align: right;">8 9</p>	9	
<p>d1 Describe the features of good teamwork in the manufacture of a product.</p> <p style="text-align: right;">0 1 2 3 4 5</p>	<p>d2 Identify effective teamwork for different aspects of manufacture, identifying key roles during the preparation of materials, components, equipment and machinery in the manufacture of their product.</p> <p style="text-align: right;">6 7 8</p>	<p>d3 Explain methods of improving the production of their product by more effective use of the manufacturing team and through improvements that could be made as a result of buying in ingredients or components.</p> <p style="text-align: right;">9 10</p>	10	
<p>e1 Describe how they produced their product using appropriate tools and equipment.</p> <p style="text-align: right;">0 1 2 3 4 5 6 7</p>	<p>e2 Explain why the tools and equipment used were appropriate to the task and identify any changes they have made to their production plan.</p> <p style="text-align: right;">8 9 10 11</p>	<p>e3 Evaluate their product in terms of the tools, equipment and processes they have used and comment on how these would be modified in 'real world' manufacturing.</p> <p style="text-align: right;">12 13 14 15</p>	15	
<p>Note: Although you will be given an interim mark out of 50 by your teacher, this mark will be moderated by OCR to make sure that it is in line with national standards. The grade (A*A* to GG) equivalent to this moderated mark will be determined at an Awarding Meeting convened for each examination series.</p>			Total	50

7.4 GUIDANCE FOR TEACHERS

7.4.1 Guidance on Delivery

The work undertaken by candidates can be based in any of the sectors of manufacturing outlined in the specification. The majority of candidates will be able to develop skills they have learnt in KS3 Design and Technology, in order to satisfy the requirements of the assessment criteria.

Candidates must be presented with a suitable design brief and specification which will allow them to produce a manufacturing production plan of appropriate complexity. The specification differs from *Design and Technology* in that the candidate simulates a real manufacturing situation. This can take the form of a small or large organisation ranging from a local baker or fashion shop through to a large scale manufacturing company. The important learning aim is for the candidate to understand the differences between one-off manufacture and manufacturing as part of a team.

Candidates should be encouraged to work in a manner similar to that employed in industry where this is appropriate. Role play and simulation exercises can prove useful, as can video or visits to industrial centres, in developing an awareness of manufacturing practices.

The product should have a number of components, preferably manufactured from different materials, and must be relatively simple to manufacture within the constraints of the Centre.

The specification contains language that reflects the requirements of Manufacturing terminology. In order to ensure that the use of specialist terminology does not exclude candidates, key terms are explained below:

- **Food**

The term *components* refers to the buying in of pre-prepared ingredients, e.g. ready-made pastry. The term *tools* refers to food preparation equipment and the term *materials* to food ingredients.

Graphics

The term *components* refers to the buying in of pre-prepared units, e.g. pre-printed packaging. The term *tools* refers to graphic equipment and the term *materials* to card, paper, board and similar graphics materials.

Engineering, Systems and Control

Systems candidates will be familiar with the terms *components, tools and equipment*. The term *materials* refers to circuit boards and similar base components.

Resistant Materials and Textiles

Resistant Materials and Textiles manufacturing candidates should be familiar with the terms *tools, materials and equipment*. Textiles candidates should understand the term *components* as purchased pre-printed materials, ready-made buttons, etc.

The design specification should be clear and meaningful, with appropriate constraints and limitations.