

6.2.7 Presenting your Design Solution

You must learn how to present your chosen design solution to the client effectively. The presentation is your chance to explain and *sell* your proposal to the client and it is their chance to comment on your solution. To be effective, you must show how the work you have done to develop the design solution meets the client design brief.

The presentation must explain:

- the key features of the solution, including information about production and materials constraints;
- how you met the client design brief, including how your design will conform to quality standards;
- what research you have carried out.

To present your design solution you will need to choose and use suitable presentation techniques. These may include:

- fully annotated freehand sketches and drawings;
- photographs and ICT generated images;
- samples and swatches;
- technical drawings and diagrams;
- written material;
- spoken explanations;
- mock-ups, models and prototypes.

You should use appropriate ICT applications to develop and make your presentation.

6.2.8 Modifying Design Solutions

You must know how to respond to feedback from your client about your design solution. For example, you might need to change your design solution, or you might need to explain it in more detail. Your final, modified design proposal will need to reflect both the client's needs and the research you have done on the best way to manufacture the product.

6.3 ASSESSMENT EVIDENCE FOR UNIT 1: DESIGNING PRODUCTS FOR MANUFACTURE

You need to produce evidence in your portfolio of a product design specification and a design solution for a manufactured product, working from a customer design brief. Your design specification and design solution **must** include:

- a** details of the customer design brief, the design specification and associated information [9 marks];
- b** information about how you developed a design solution from your design specification [7 marks];
- c** the stages of manufacture and related quality control procedures, including health, safety and hygiene issues, that will be used to make a batch of your product [9 marks];
- d** how you communicated your selected design solution to the customer, by developing sketches, notes and working drawings [10 marks];
- e** consideration of how to manufacture your selected design solution, identifying the manufacturing processes and quality standards that would be used to produce your product **in quantity** [15 marks].

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
a1 Produce a design specification from a given design brief. <p style="text-align: right;">0 1 2 3</p>	a2 Produce a detailed design specification, using customer feedback and associated information. <p style="text-align: right;">4 5 6</p>	a3 Justify the final design specification by explaining how customer feedback and associated information were used. <p style="text-align: right;">7 8 9</p>		9
b1 Use their design specification to produce ideas for a design solution. <p style="text-align: right;">0 1 2 3</p>	b2 Explain the use of their design specification in developing ideas for their final design solution. <p style="text-align: right;">4 5</p>	b3 Fully justify their choice of a final design solution from a range of ideas. <p style="text-align: right;">6 7</p>		7
c1 Identify health, safety and hygiene issues that arise in making their product. <p style="text-align: right;">0 1 2 3 4</p>	c2 Identify the quality control procedures that would be used in each stage of making their product. <p style="text-align: right;">5 6 7</p>	c3 Evaluate quality control, quality assurance and total quality management applied to making their product. <p style="text-align: right;">8 9</p>		9

<p>d1 Use diagrams, sketches and other appropriate methods to present their design solution to the customer.</p> <p style="text-align: right;">0 1 2 3 4 5</p>	<p>d2 Use diagrams, sketches and other appropriate methods, including modelling, to explain their design solution to the customer.</p> <p style="text-align: right;">6 7 8</p>	<p>d3 Use diagrams, sketches, working drawings and other appropriate methods, including modelling, to justify their design solution to the customer.</p> <p style="text-align: right;">9 10</p>		10
<p>e1 Identify the manufacturing processes that would be used to produce their product in quantity.</p> <p style="text-align: right;">0 1 2 3 4 5 6 7</p>	<p>e2 Identify the stages and associated quality assurances that will be used to manufacture their product.</p> <p style="text-align: right;">8 9 10 11</p>	<p>e3 Evaluate and justify the stages and associated quality assurances they will use in the manufacture of their product, with particular reference to '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

6.4 GUIDANCE FOR TEACHERS

6.4.1 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 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.

Candidates should be given the opportunity to work in a range of materials and components to design products for manufacture in any material area including food, textiles, resistant materials, paper and card. Using components from kits, such as lego, fischer technik, or ready made food components such as flan cases, will allow candidates to produce prototypes and models relatively easily. They can then go on to develop their ideas and, where necessary, produce alternatives to the pre-manufactured items.

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.

Candidates need to work with a brief. This should not be open-ended, as in industry, product design is rarely an open-ended practice. Candidates can then draw conclusions from the design brief and formulate a design specification. They should then go on to use this information in developing solutions to the design brief.