

**Website Exemplar**  
**GCE (A2) Resistant Materials**  
**Unit: 6RM04**  
**Topic: Magazine Display Rack.**

Notes		
A	Research & analysis	<p>Analysis is limited and does not result in design needs being clarified beyond that of needing 'some kind of magazine and storage unit'. A client interview establishes more useful information.</p> <p>Product analysis is useful in looking at materials and processes used in commercially available similar products and this is carried out well. Client input is mentioned here.</p> <p>The questionnaire used to gather market research information is weak and focuses on reading habits rather than the intended product. some 'further research' is useful, but information on cam-locks, corner and wall fixings and casters is irrelevant at this point as the student has not designed anything yet and does not know what kind of fixtures and fittings may be required.</p> <p>Analysis is limited, but some research and product analysis is focused on the intended product, and this evidence lies on the 2/3 mark border. On balance.</p> <p>Mark range 3-4</p>
B	Product specification	<p>Some specification points are measurable, e.g. 'the design must display at least 6 magazines', but others are not and there is a lack of technical information such as limits on dimensions and loading. Some points are superficial e.g. 'materials used should not look cheap'. Most points are justified. Sustainability is considered, but superficially. It is difficult to see how specification points have been informed by research or client preferences</p> <p>The evidence presented matches the lower level of achievement.</p> <p>Mark range 1-3</p>
C	Design	<p>A range of workable alternative ideas is presented and each one is detailed with technical information including possible materials and processes that could be used if the design was taken to the manufacturing stage. Designs are realistic and explore a good range of approaches, including card modelling, but are lacking slightly in individuality.</p> <p>Annotation includes reference to specification points and research. Client feedback is shown for each design idea.</p> <p>The evidence presented meets the requirements of the high scoring assessment criterion.</p> <p>Mark range 7-10</p>
C	Review	<p>Three design ideas are reviewed formally against specification points. Objective comments are made, but several are subjective and repetitive</p>

		<p>from design to design. Client feedback is recorded. Sustainability issues are considered.</p> <p>User group feedback is referenced on design ideas pages too.</p> <p>Mark range 3-4</p>
C	Develop	<p>This is a strong section that demonstrates good development from the selected initial idea to the final design proposal. The student shows how the original design is changed, moved on and refined into a final design proposal and in doing so employs modelling appropriately, testing of processes materials and techniques and client feedback to evaluate the final proposal.</p> <p>Annotation provides detailed information to support development.</p> <p>Mark range 7-10</p>
C	Communicate	<p>The student has used a wide range of communication techniques expertly to convey information to the reader. Most information necessary for a skilled third party to manufacture the product is presented, but the working drawing is lacking in detail and has some dubious dimensions for example, 1035.93 and 1803.83, presumably measured in millimetres.</p> <p>Mark range 4-6</p>
D	Planning	<p>The student has succinctly produced a detailed production plan that matches all of the requirements of this section. The Gantt chart highlights the projected timings for completion of processes and the actual time taken, illustrating the students attention to detail.</p> <p>Mark range 4-6</p>
E	Making: use of tools and equipment	<p>The student has demonstrated high quality skills in the use of tools and equipment, employing creative thinking to achieve the curved supports for the product. Skills in welding, machining using the centre lathe and milling machine, screw-cutting and in the use of hand tools are shown in the diary of making. Although high levels of skill are demonstrated in producing the frame of the rack, the 'boxes' are butt jointed and glued, using simplistic processes and basic skills.</p> <p>Safety awareness is considered through risk assessment on page 24.</p> <p>Mark range 7-9</p>
E	Making: Quality	<p>The student has justified the selection of materials and a process used in manufacturing the product and has produced a high quality outcome that is fully functioning and matches the final design proposal.</p> <p>Mark range 11-16</p>
E	Making: complexity/level of demand	<p>The challenge of creating the curved supports was high and the machining of metal parts demanded good levels of skill. Making the boxes and bending the acrylic magazine supports was much less demanding</p>

		<p>however.</p> <p>Mark range 7-9</p>
F	Testing & evaluation	<p>Some tests are carried out, but these are not described as focusing on specification points. The test to determine whether a magazine would fall of the display is inappropriate as it is a test of the structure of the magazine and not of a feature of the product.</p> <p>No client feedback or user-group testing is recorded and while suggestions for modifications are appropriate, they do not originate from tests carried out.</p> <p>Life cycle assessment is carried out on the final product.</p> <p>Mark range 4-6</p>