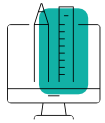

Topic: EDI sculpture and table	**Full portfolio evidence**	
General Description: The candidate has submitted an 85-slide portfolio, which is somewhat lengthy; several sections could be more concise. However, overall, this is an engaging and comprehensive project that comfortably achieves an A grade. The work begins with an exploration of several potential clients before one is selected. After extensive discussions with the client, the candidate chooses to develop an external visualisation promoting equity, diversity, and inclusion (EDI) for their school. A thorough investigation results in a well-considered specification, which then informs the creation of three initial design concepts. A detailed development phase follows, including extensive iterative modelling, ultimately leading to a clearly presented final proposal. The final outcome is a sophisticated outdoor table incorporating a central sculpture, showcasing a wide range of high-level skills. The completed prototype successfully meets the requirements of the brief.		**Mod Mark**
Grid 1: Investigation Evidence Slides 4, 2, 3&4, 4, 5	The work begins with an overview of several potential clients; however, it may have been more effective to focus solely on the chosen client, using the range of possibilities identified on slide 4. This would have been sufficient to achieve a high-level mark and would have made the section more succinct and focused. Slide 2 presents information from the selected client and includes an initial design brief outlining the project's theme: promoting a positive approach to, and raising the profile of, EDI within the candidate's school. The bottom of slide 2 highlights both positive and negative examples of EDI recognition within the school community. This is followed by a wide-ranging consultation with stakeholders from the EDI community and other relevant sources, shown on slides 3 and 4 and summarised at the bottom of slide 4. Slide 5 identifies the top three possibilities, bringing the investigation of the needs, wants, and values of both the client and stakeholders to a strong conclusion. The section ends with the selection of the final concept and a well-reasoned justification for it: a striking visualisation piece designed to celebrate diversity	**Level 3**

Grid 2: Investigation / Research Evidence Slides: 6, 7, 8, 9, 10, 11, 12, 12, 13, 14, 15 &16	This section begins on slide 6 with an analysis of the research requirements and a summary of further client consultation. Slide 7 focuses on identifying the ideal location for the product; however, this lacks detailed analysis and justification. The chosen location is confirmed on slide 8, where dimensions are added. Different aspect views are also considered, though they are not fully analysed or justified. Slide 9 presents a study of soil density and seasonal climate changes at the outdoor site, with useful conclusions drawn. Slide 10 examines design features, including dimensional parameters and elements found in the surrounding area. This is partially analysed and concluded, but not in significant depth. An anthropometric analysis of the school's general population, with particular attention to outliers, is presented on slide 11. This would have benefitted from deeper analysis and a stronger conclusion. Slide 12 considers the dimensional restrictions of objects that may interact with the final product, while slide 13 reviews the materials and distinctive features of existing products in and around the chosen location, offering some sound analysis. Slide 14 provides a more detailed exploration of the broad aspects associated with EDI, including suggested outcomes from a focus group. Slides 15 and 16 examine historical design styles, though their inclusion feels somewhat contrived. Overall, this is a thorough section; however, it does not quite reach level 4 due to limited analysis and weak conclusions in several areas, as well as the inclusion of elements whose relevance is unclear. For example, elements of slides 12-16. Consequently, the work sits at the top of level 3.	**Level 3**
Grid 3: Specification Evidence Slide: 17	In this section, candidates are expected to produce a focused design brief that fully reflects the investigated needs, wants, and values of the client or end user. Specification points should be realistic, technical, measurable, and well justified. The specification is presented on slide 17, beginning with a refined design brief. While this brief is considered, it is not fully comprehensive, as it does not entirely reflect the earlier investigation. For example, the size restriction appears here for the first time. Many of the specification points are focused and measurable; however, some are not, for instance, the requirement that the product be "strong enough to withstand wind and tension while being moved." The justifications provided are sound and concise. A final column is included, but its purpose and meaning are unclear. This column would have been far more valuable if it had been used to indicate how each specification point could be tested. Doing so would have strengthened the later completion of grid 11, Testing and Evaluation.	**Level 2**

	Overall, the work is well developed and sound, but not fully comprehensive. It therefore sits comfortably at the top of level 2.	
Grid 4: Design ideas Evidence Slides: 18 to 23, 24,	In this section, candidates are expected to use a range of design strategies to develop practical ideas that respond directly to the client and the specification. They should demonstrate commercial awareness, apply appropriate technical skills and materials knowledge, and justify their decisions through both prior and additional research. Imagination is essential, with inspiration drawn from sources such as nature, industry, design movements, and emerging technologies. Design ideas are presented on slides 18 to 23 and are reviewed and concluded on slide 24. Three distinctly different initial concepts are produced, and all aspects of the marking criteria for this section are addressed for each design. However, the designs lack detail regarding subassemblies, and when each idea is compared against the specification, a numerical score is provided without any accompanying justification. Given the broad nature of the project, there was scope to explore a wider range of ideas, so this may represent a missed opportunity. The review on slide 24 is concise and considers both client feedback and specification requirements in order to select the design to be developed further. There is a degree of sophistication in the work produced for this section. The candidate demonstrates strong knowledge, and much of the work is well executed. However, the work does lack sufficient sub assembly detail and a lack of depth. The work here is a borderline level 2/3. The assessment here is the at the top of level 2.	**Level 2**
Grid 5: Development Evidence Slides: 25 to 34, 25, 26, 27, 26, 28, 29 & 30, 31, 32 to 34,	The development section appears on slides 25 to 34, beginning with a more detailed initial statue concept on slide 25, which then evolves into a table-mounted version on slide 26. A digital 3D model was created, prompting client-requested changes due to the design being too angular. On slide 27, additional manufacturing methods for the statue were explored using flat-plane card and wire, though both were ultimately deemed unsuitable. Table-leg development also appears on slide 26, drawing inspiration from stained-glass window designs. Slide 28 continues the refinement of both the statue and the overall table, with an initial attempt to integrate the elements. This leads to the identification of appropriate materials for each component, supported by further research on slides 29 and 30. A full-sized card model of the final	**Level 3**

	design is then produced and tested with stakeholders in the chosen location, as shown on slide 31. This testing results in further modifications and slides 32 to 34 focus on determining the most suitable manufacturing method for each element through further experimentation. The work in this section demonstrates an accomplished use of an iterative approach and a sophisticated application of modelling techniques, placing it comfortably within level 3.	
Grid 6: Final design Evidence Slides: 35, 36, 37 to 42, 43 to 56, 33	In this section, candidates are required to provide sufficient manufacturing detail for a third party to reproduce the design. This should include final drawings, complete material and component lists, relevant part or exploded views showing how elements fit together, an overview of manufacturing processes, calculations for cost and material quantities, and strategies for reducing waste. The section begins on slide 35 with an exploded CAD drawing of the tabletop and base structure, giving a clear indication of how the parts fit together. Slide 36 presents a 3D X-ray view of the full table, with all components labelled. This is followed by a full set of part drawings, each fully dimensioned and accompanied by parts lists on slides 37 to 42. Slides 43 to 56 provide a comprehensive manufacturing specification, including detailed exploded views and explanations of how each element fits together, along with consideration of quality checks, potential risks, and relevant safety measures. This section is thorough and extremely clear while remaining concise. There is some evidence of costings earlier on in the development section but they are somewhat unrelated to the product; however, the use of 'Deepnest' for laser-cutting as a waste-reduction strategy is evident on slide 33. Overall, the work in this section is well executed and sits comfortably within Level 3.	**Level 3**
Grid 7: Review Evidence Slides: 19, 21 & 23, 20, 22, 25 to 34	Evidence in this section should include analysis within the development and summary pages, ideally comparing the final idea against the specification. Communication must be logical and clear, using appropriate technical vocabulary. This is not a stand-alone section; evidence should primarily be drawn from the development work and final ideas but may also include reviews within the design-ideas or research sections, such as analysis of prototypes produced by others. The work must be analytical rather than descriptive, presenting a balanced evaluation that outlines both strengths and weaknesses. Across the portfolio, the writing style is technical and analytical, and review statements are clearly identifiable, highlighted in yellow. However, the earlier statements, up to slide 19, do not review design work; instead, they analyse the content of each slide. This misunderstanding continues into the ideas section on slides 21 and 23, although the candidate does begin to correctly and comprehensively evaluate the pros and cons of design elements on slides 20, 22, and 25 to 34.	**Level 3**

	A genuinely iterative approach is evident throughout the development, with some stakeholder input, though fewer client consultations than might be expected for top-level performance. Overall, therefore, the work in this section is sound and sits comfortably at the upper end of Level 3.	
Grid 8: Communication Evidence across portfolio	Candidates should demonstrate perceptive selection and accomplished use of: • Traditional/manual graphical techniques • Computer-aided design (CAD) techniques • Written communication methods All strands are met by the candidate. Both the CAD work and written techniques show a perceptive level of detail, illustrations are well presented and accomplished in their use, and the design intention is clear. The choice of communication methods is fully appropriate, placing the work at the top of Level 3.	**Level 3**
Grid 9: Tools & Equipment Evidence Slides: 57 to 77, 57 to 63, 64 to 71, 72 to 76, 76 to 77	In this section, candidates are required to demonstrate appropriate selection and use of tools and equipment, showing an understanding of the materials involved and providing justification for their choices. The processes chosen should support effective prototype manufacture and ensure dimensional accuracy. A detailed and comprehensive photo diary is presented on slides 57 to 77, offering a clear picture of the complexity and level of detail involved. However, this section could have been condensed by removing repeated images and placing more photographs on each slide. Slides 57 to 63 document the production of the tabletop, made from oak and incorporating a complex construction using biscuit joints. This results in a circular form with an even grain pattern, providing consistent strength in all directions. Slides 64 to 71 show the construction of the mild-steel leg section, which again features a complex build with challenging curved components formed using a slip-roll bender. Brazing is used to join the elements. Slides 72 to 76 focus on the sculptural component, a highly complex 3D form created from multiple laser-cut acrylic layers. This is a particularly sophisticated piece of work. The candidate demonstrates strong competence in software such as Blender and the nesting program Deepnest. Slides 76 to 77 document the finishing and final assembly, including a laser-engraved aluminium plaque. Overall, the work in this section is clearly sophisticated and highly accomplished, with a consistently high degree of safety demonstrated throughout. It sits comfortably at the top of Level 4.	**Level 4**

Grid 10: Quality & Accuracy Evidence Slides: 83 to 85, 57 to 77,60, 67, 74	This section should demonstrate advanced making skills, resulting in an accurate, high-quality prototype that meets end-user needs. The photographs on slides 83 to 85, along with the photo diary on slides 57 to 77, clearly show that accomplished making skills have been applied. It is also evident that the solution responds effectively to what was a sophisticated initial design problem. The final prototype is fully functional and meets the original specification requirements well. Slides 60, 67, and 74 provide evidence of a sophisticated iterative approach, where manufacturing methods were adapted to accommodate unexpected changes. Overall, the work in this section is accomplished and sits comfortably at the top of Level 4.	**Level 4**
4.1 Testing and evaluation Evidence Slides: 78 to 82, 78 to 79, 80, 81, 82, 81	In this section, candidates are expected to analyse the prototype by testing it against the specification and carrying out physical tests, ideally in the intended location. They should also gather feedback from the client and/or user group. The results should then be summarised in an evaluation that identifies potential future improvements to the product's performance. Slides 78 to 82 contain the testing and evaluation. Slides 78 and 79 show a series of physical tests carried out in the chosen location. Slide 80 provides a complete check against the original specification and slide 81 includes detailed client feedback. The environmental impact is perceptively analysed on slide 82; however, the moral, social, and ethical considerations are not addressed. Given the nature of this project, this represents a missed opportunity. Much of the work is comprehensive; however, the candidate's own conclusion is underdeveloped, and suggestions for improvement are only briefly mentioned on slide 81. The work therefore sits comfortably in Level 3.	**Level 3**
		Borderline Grade A/A*