

| Level 2 AS 91356 - Conceptual Design (6 Internal)  |   |   |  |   |   |   |   |   |
|--|---|---|--|---|---|---|---|---|
| Achieved   |   |   |  |   | Merit (refined)   |   | Excellence (justified)  |   |
| Research and Analysis of Existing Outcomes   | Generate Initial Ideas informed by research   | Evaluate design ideas through SH Feedback, research and functional modelling<br><br>FM = Eliminate, Anticipate, Define  | Choose and communicate clearly a final design  | Explain the outcome's potential fitness for purpose   | Ongoing exploration and evaluation of design ideas to determine their suitability for inclusion in conceptual designs   | Use evidence from ongoing research, FM and SHF to evaluate conceptual designs   | Synthesise evidence from ongoing research and functional modelling, including feedback from stakeholders, to evaluate conceptual designs  | Substantiate the outcome's potential fitness for purpose  |
| <p><i>Examples of a range of relevant existing ideas are analysed using ACCESSFM</i></p> <p><i>SH Feedback gathered from Existing Ideas Research and reflected on</i></p> <p><i>Summary of good design features with further research areas identified</i></p> <p><i>(Evidence from Brief Development)</i></p> | <p><i>Range of 2D thumbnails and 3D Explorative Sketches that reflect research and specifications gathered during Brief Development</i></p> <p><i>Final design must include:</i></p> <ul style="list-style-type: none"> <li>- Mortise and tenon joint</li> <li>- One of: Parquetry, inlaid design and/or dressed edges</li> </ul> | <p><i>Explorative sketches are analysed against Specifications with SHF gathered. Reflection given of design to be developed further</i></p> <p><i>Functional Models, tests, trials and sketches are used to explore design in more depth during development</i></p> <p><i>SHF gathered during development phase and reflect in design decisions - Summary Sheet(s) of Stakeholder feedback , SH rate of FM accuracy</i></p> <p><i>Further research is used to develop design ideas</i></p> | <p><i>Select final idea and describe in detail how outcome would look and function</i></p> <p><i>Final Outcome communicated using a range of the following:</i></p> <ul style="list-style-type: none"> <li>- Freehand sketches</li> <li>- Diagrams</li> <li>- Technical drawings</li> <li>- Models</li> <li>- Sketchup</li> <li>- Models/animations</li> <li>- Written descriptions</li> <li>- Cutting list</li> <li>- Components List</li> <li>- Assembly Instructions</li> </ul> <p><i>SH Communication methods identified alongside aims, methods and reason for choice</i></p> | <p><i>Evaluate and explain how final outcome meets product specifications (as determined in your Brief)</i></p> <p><i>Discuss what could go wrong with the final design (constraints) and how you have addressed this in your development of your design.</i></p> | <p><i>Ongoing research throughout outcome development can also include:</i></p> <ul style="list-style-type: none"> <li>- Specific Materials research</li> <li>- Range of project specific research</li> <li>- SHF on construction ideas and functional modelling</li> </ul> | <p><i>Design decisions clearly based on evidence found in ongoing research, SHF and functional modelling and explained in depth</i></p> | <p><i>Complete project clearly flows and design development is clear from initial idea to final outcome.</i></p> <p><i>Ongoing analysis of research, prior knowledge, SHF and FM: used to clearly justify design decisions with all design decisions documented</i></p> <ul style="list-style-type: none"> <li>- Linked to brief and design specifications</li> </ul> <p><i>All outcome specifications are developed and justified in depth</i></p> | <p><i>Final outcome attributes are justified against the outcome need and specifications</i></p> <p><i>Evidence is used to substantiate design judgements</i></p> <p><i>The final design is proven as FFP against the Brief</i></p> |

#### Greater Depth

- Your explanations and evaluations need to be in greater depth than at level 1. You are not just saying “This happened because...” Instead you are analysing and giving reasons why things happened as they did and then making informed decisions about what you must do next as a result of your analysis.

#### Relevant Research

- Research is not just a quick look around the internet but must be channelled, relevant to your requirements and take place throughout the process of developing your designs. You must be seen to analyse and select information that enables you to justify your decisions and that helps to refine ideas that lead to a suitable final outcome.

#### The Need for Evidence

- Evidence of correct technological practice is at the root of this standard. Assumptions and statements about the development of your outcome must not be made unless there is evidence to back them up. The evidence comes in the form of functional modelling. You must explore technical feasibility, social acceptability and potential fitness for purpose of the final design.

#### Stakeholder Feedback

- Must be an integral part of the evaluation of your designs. You need to gather feedback from both Primary and Secondary SH's throughout the design process. For 'Excellence', information should be synthesised - to do this you need to gather all information from relevant sources to then write justified, informed decisions.

#### Detailed Description

- You must clearly communicate a detailed description of how the technological outcome with look and function and must have the potential to address the brief in the form of technical drawings, scale models, computer simulations, written descriptions, details of materials and components and/or assembly instructions.