

Level	Description
5	<p>The student has provided clear, consistent and convincing evidence that they:</p> <ul style="list-style-type: none"> ● actively designed and built a prototype of an innovative product ● identified an explored need or problem and developed a solution that successfully meets the need and is a significant improvement over previous alternatives or applications ● addressed an issue of social or technological significance ● displayed a deep understanding of technological concepts used in the prototype ● included a concise and comprehensive summary of relevant market research, exploring the existence of similar products and appraising their aesthetic and functional qualities ● implemented safe work practices in the prototype’s design and production ● demonstrated quality design and production skills ● had convincing arguments for the choice of materials and technologies selected ● produced a well-constructed and reliable prototype that performs as intended ● included a comprehensive portfolio or logbook, detailing the stages of the design process from brainstorming, through prototyping, to final product and evaluation ● used critical thinking in the evaluation and testing of the prototype, discussing alternatives and modifications and evaluating the impact of the prototype on society and the environment ● suggested worthwhile directions for future development in a succinct manner ● formally acknowledged those who contributed to the project ● used clear, concise and meaningful language and visuals to communicate the operational details and applications of the prototype to the intended audience
4	<p>The student has provided substantial evidence that they:</p> <ul style="list-style-type: none"> ● designed and built a prototype of an innovative product with considerable planning ● developed an innovative product which meets a need or problem, different from previous alternatives or applications ● designed the innovative product for the benefit of society ● displayed a thorough understanding of technological concepts used in the product ● included a summary of current and relevant market research ● incorporated a thorough management plan that included action, time and finance ● designed an innovative prototype, developed an original solution and demonstrated enterprise skills ● had shown skill in the design and production of the prototype and implemented safe work practices in the prototype’s production ● included some justification for the selection of materials and use of resources ● had constructed a prototype that performs as intended ● included a portfolio or logbook detailing the different stages of the design process ● exhibited rational thinking in the testing and evaluation of the prototype ● put forward directions for future development ● acknowledged and provided details of any assistance given ● effectively communicated the prototype’s operational details and the language and visuals take account of the audience

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3	<p>The student has provided evidence that they:</p> <ul style="list-style-type: none"> • designed and built a prototype of an innovative product • developed an innovative product which is a solution to a need or problem • had an innovative product which has some innovative or creative features • demonstrated an understanding of technological concepts used in the product • collected background market research with some relevance to the need or problem • considered a variety of designs with the selected design being chosen with little justification • incorporated a management plan that considered action, time and finance • displayed good workmanship in the design and construction of the prototype • used materials in the prototype model's construction with little justification • had constructed a prototype that works • had performed preliminary testing of the prototype • provided supporting documentation in the accompanying portfolio or logbook • put forward some good and practical ideas for future improvements • acknowledged any assistance given • communicated the prototype's operational details with good use of language, visuals and sequencing, appropriate to the intended audience
2	<p>The student has provided evidence that they:</p> <ul style="list-style-type: none"> • built a prototype of an innovative product with little planning or design • built a product lacking any innovative or creative features • demonstrated some understanding of technological concepts used in the prototype • performed limited or general background research • considered only one or two designs before commencing constructing • incorporated a basic management plan with some of the aspects of action, time or finance • displayed simple workmanship in the design and construction of the prototype • used some materials in the prototype's construction that were not suitable • had tested the prototype with irregular performances • provided limited documentation in the accompanying portfolio or logbook • put forward some ideas for future improvements • received some assistance but did not provide details of the assistance given • included an adequate set of operational instructions to assist the audience
1	<p>The student has provided evidence that they:</p> <ul style="list-style-type: none"> • entered a prototype of an innovative product that does not fully work • demonstrated little understanding of technological concepts used in the product • performed nominal or irrelevant background research • provided designs and sketches that were haphazard • made a prototype with poor workmanship • poorly selected materials and technologies • had not sufficiently tested the prototype and ideas for future improvements are vague and impractical • provided limited or disorganised documentation • neglected to acknowledge assistance given • provided poorly expressed operational instructions for the innovative product