| Level | Description |
| --- | --- |
| 5 | The student has provided **clear and convincing evidence** that they:* **actively** designed and built a prototype of an innovative product
* **identified** a need or problem and developed a solution that is an **improvement** over current alternatives
* addressed an issue of **technological significance**
* had a **good understanding** of the technological concepts used in the product
* included **relevant** background research and **evaluated** the **originality** of their design by exploring similar related products
* had been **creative** in the design of the product and its production
* employed **safe** and **competent** construction and design skills
* exhibited **resourcefulness** in the use of materials
* produced a **reliable** innovative product that is **easy to use** and **performs as intended**
* included a **comprehensive** logbook or portfolio, detailing the design process from brainstorming through construction, to final product and evaluation
* **used critical thinking** in the evaluation and testing of the innovative product, discussing modifications or improvements
* suggested directions for **future development** in a succinct manner
* **formally acknowledged** those who contributed to the project
* used **clear**, **concise** and **meaningful** language to communicate the operational details of the innovative product to the intended audience
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| 4 | The student has provided **substantial evidence** that they:* designed and built a prototype of an innovative product with **considerable planning**
* developed an innovative product which is a **solution** to a need or problem, different from existing products
* **identified** and **understood** technological concepts used in the innovative product
* performedbackground research and **searched** for similar products on the market
* demonstrated **some creative** aspects
* had shown **skill** in the design and construction of the innovative product and **safe procedures** were adopted in the product’s production
* made **considered** choices in the selection of materials
* had constructed a prototype of an innovative product that **works well**
* included a logbook or portfolio **detailing** the different stages of the design process
* exhibited r**ational thinking** in the testing of the innovative product and **alternative procedures** for improvements have been suggested
* **acknowledged** and provided details of any assistance given
* **effectively** communicated the innovative product’s operational details and the language and visuals **take account** of the intended audience
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| 3 | The student has provided **evidence** that they:* designed and built a prototype of an innovative product
* developed an innovative product which is a **solution** to a need or problem
* demonstrated an **understanding** of technological concepts used in the product
* performed **relevant** background research
* had an innovative product which has some **creative** features
* displayed **reasonable** workmanship in the design and construction of the innovative product
* used **suitable** materials in the prototype’s construction
* had a prototype of an innovative product that **works** most of the time
* provided **supporting** documentation in the accompanying logbook or portfolio
* **tested** the product and put forward some **good** ideas for future improvements
* **acknowledged** any assistance given
* included an **adequate** set of operational details to **assist** the intended audience
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| 2 | The student has provided **evidence** that they:* built a prototype of an innovative product with **little** planning or design
* built a product which **lacks** originality
* had placed the innovative product in a **technological context**
* performed **little** background research
* had shown **glimpses** of creativity
* displayed **satisfactory** workmanship in the design and construction of the innovative product
* used some materials in the working model’s construction that were **not suitable**
* had a prototype that works **irregularly**
* provided **limited** documentation in the accompanying logbook or portfolio
* **briefly** tested the prototype and **insufficient** ideas have been put forward for future improvements
* **casually** mentioned people who have helped without **formally** acknowledging assistance given
* included an **inadequate** set of operational details for the intended audience
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| 1 | The student has provided **evidence** that they:* entered an innovative product that **does not fully work**
* had an **inadequate** understanding of the related technological concepts
* provided designs and sketches that were **haphazard**
* made a prototype with **poor** workmanship
* **failed** to test the prototype and ideas for future improvements are **vague** and **impractical**
* provided **limited** or **disorganised** documentation
* **neglected** to acknowledge assistance givendid **not** include instructional details about the innovative product
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