| Level | Description |
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| 5 | The student has provided **clear and convincing evidence** that they:* designed and built a **highly original** invention or innovative product to meet an **identified need** or problem
* **gathered highly relevant** background information and **evaluated** the **originality** of their design by exploring related existing products or applications
* had an **in-depth understanding** of the technological concepts related to the need, problem or innovation
* demonstrated **high** level skills in the safe and ethical construction of the product
* completed a detailed **risk assessmen**t and carefully selected **appropriate materials** and **technologies**
* demonstrated **high** levels of **creativity** during the design process
* **extensively tested** the invention or innovative product to refine and improve the design
* included a logbook or portfolio that **extensively** detailed the stages in the design process from initial ideas, through construction, to final product and evaluation
* **acknowledged** the nature of all assistance given in conducting and communicating the design process\*
* included a **clear and detailed description** of how their invention or innovative product is used and operated
* language used in **all** written documentation reflects students own **authentic voice** and **understanding\***
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|  4 | The student has provided **substantial evidence** that they:* designed and built an original invention or innovative product in response to a need or problem
* **gathered some relevant** background research by exploring related existing products or applications
* had a **clear understanding** of the technological concepts related to the innovation
* demonstrated **satisfactory** skills in the safe and ethical construction of the product
* completed a risk assessment and selected mostly appropriate materials and technologies
* demonstrated **some creative** aspects during the design process
* **reasonably tested** the invention or innovative product to refine and improve the design
* included a logbook or portfolio that **clearly detailed** the different **stages** of the design process
* **acknowledged** all assistance given in conducting and communicating the design process
* included a **description** of how their invention or innovative product is used and operated
* language used in written documentation mostly reflects students own **authentic voice** and **understanding\***
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| 3 | The student has provided **evidence** that they:* **built** an invention or innovative product which was a **solution** to a need or problem
* gathered somebackground research by identifying related existing products or applications
* had a **reasonable** understanding of the technological concepts related to the innovation
* displayed some **skills** in the safe and ethical **construction** of the product
* completed a risk assessment and selected some appropriate materials and technologies
* demonstrated **little or no** creativity in the design process
* Some testing of the invention or innovative product to refine and improve the design
* included a logbook or portfolio that provided **some** details of the stages of the design process
* **acknowledged some** of theassistance that was given in conducting and communicating the design process
* included a **description** of how their invention or innovative product is used and operated
* language used in written documentation does not always reflect students own **authentic voice** and **understanding\***
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| 2 | The student has provided **evidence** that they:* built an invention or innovative product
* gathered little to no background research
* had a basic understanding of the technological concepts related to the innovation
* demonstrated basic skills in the construction of a product
* did not complete a risk assessment and gathered minimal appropriate materials and technologies
* demonstrated **no** creativity in the design process
* no testing of the invention or innovative product to refine and improve the design
* **did not** detail the progress of the investigation in a logbook provided
* **no** acknowledgment of assistance given in conducting and communicating the design process
* included an **incomplete** description of how their invention or innovative product was used and operated
* language used does not reflect students own **authentic voice** and **understanding**
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| 1 | The student has provided **evidence** that they:* attempted to build an invention or innovative product
* gathered little to no background research
* had **minimal** understanding of the related technological concepts
* made an invention or product with **poor** workmanship and limited documentation
* did not complete a risk assessment and gathered minimal appropriate materials and technologies
* demonstrated **no** creativity in the design process
* no testing of the invention or innovative product to refine and improve the design
* **did not** detail the progress of the investigation in a logbook
* **failed to acknowledge** assistance given
* failed to describe how the invention or innovative product is used or operated
* language used does not reflect students own authentic **voice** and **understanding**
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