| **Assessment grid** | | | |
|---|---|---|---|
| Subject: rm | Year: 7 | Topic/module/theme: waterwheel | |
| **KS4 target direction** | **4** | **6** | **8(9)** |
| **Advanced** | Enrichment/extension – reaching, or part of, next pathway →<br>Features of work may include: | Enrichment/extension– reaching, or part of, next pathway →<br>Features of work may include: | Enrichment/extension<br>Features of work may include: |
| **Secure**<br><br>*Students must achieve competence in **all** statements before being judged 'Secure'* | **Secure**<br>The student can:<br>**Design**<br>Show at least 2 designs of whaterwheels.<br>Each compontent of the waterwheel needs to be clearly drawn<br><br>**Make**<br>Make a whaterwheel that is freestanding and turns when water is applied | **Secure**<br>The student can:<br>**Design**<br>Produce 3 designs of waterwheel.<br>These designs must be clearly drawn with each component labelled.<br><br>**Make**<br>Make a waterwheel where most componts are of equal size.<br>Each piece of plywood is sanded so the surface and the edges are smooth | **Secure**<br>The student can:<br>**Design**<br>Produce 3 designs of whaterwheel that are distinctly different to one another.<br>Designs need to be fully annoteded in terms of materials used, sizes, and the function.<br>Design decisions need to be fully explained<br><br>**Make**<br>Make a waterwheel that has components that are in exact proportion to one another.<br>Each component is finished to a high degree and assembled perfectly accordinding to the design.<br>The waterwheel turns easily and produces power. |

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| | • **Evaluate**<br>Comment on the amount of elecrtical energy your waterwheel produced. What factors determined the outcome<br>Explain most health and saftety requirements when making<br><br>**Technical knowledge**<br><br>Understand what a mechanism is and how it can be used to do different jobs and activities.<br>Know<br><br>**Homework**<br>Homework tasks are incomplete or to an unacceptable standard. | **Evaluate**<br>Evaluate the project and how well your waterwheel performed making refrence to the materials and the tools you used<br>Explain any health and saftety requirements when making<br><br>**Technical knowledge**<br>Understand how mechanisms and machines can be used to enhance technology.<br><br>**Homework**<br>All homework tasks are completed to a good standard. | **Evaluate**<br>Evaluate in detail exactly how your waterwheel performed in testing. Talk about the materials, the design, the construction process and the time limitations.<br>Explain any health and saftety requirements when making<br><br>**Technical knowledge**<br>Understand how mechanical systems can be improved by employing engineering principles.<br>Understand what materials and tools are being used and why they are being used<br><br>**Homework**<br>All homework tasks, including the extended project have been completed to a high standard. |
| **Developing** | Mostly secure – one or more gaps | Mostly secure – one or more gaps | Mostly secure – one or more gaps |
| **Beginning** | Significant gaps | Significant gaps | Significant gaps |