

**CONSTRUCTION AND MECHANICAL TECHNOLOGIES: CONSTRUCT A RESISTANT MATERIALS PRODUCT**

Construct a resistant material's product requires students to implement procedures and tests to make specified products using resistant materials.

Initially students learn to perform a sequence of techniques and tests to make resistant materials products that meet specifications. Students should progress to performing complex procedures, which incorporates interlocking parts to make a high quality resistant materials product that meets specifications.

	LEVEL 6	LEVEL 7	LEVEL 8
<b>LO</b>	<i>Implement basic procedures to make a resistant materials product</i>	<i>Implement advanced procedures to make a resistant materials product</i>	<i>Implement complex procedures to make a resistant materials product</i>
<b>TEACHER GUIDANCE</b>	<p>To support students to implement basic procedures to make a resistant materials product, at level 6, teachers could:</p> <ul style="list-style-type: none"> <li>• Ensure students are aware of a wide range of basic measuring, cutting, shaping, joining and finishing techniques</li> <li>• Ensure students are able to interpret job sequences from step-by-step instructions and understand the tests required to check progress when constructing products that will ultimately meet specifications</li> <li>• Ensure students have an appropriate environment, tools and materials to enable students to work safely with resistant materials to make a product</li> <li>• Provide opportunity for students to explore and discuss techniques and tests in terms of skilfulness and efficiency</li> <li>• Provide opportunity to explore what techniques are most suitable for use with a variety of resistant materials</li> <li>• Provide students with the opportunity to practice a range of basic techniques on different resistant materials and carry out appropriate checks to increase accuracy and finish. This may be through completing a range of individual products and/or joint class projects/activities.</li> </ul>	<p>To support students to implement advanced procedures to make a resistant materials product, at level 7, teachers could:</p> <ul style="list-style-type: none"> <li>• Ensure students are aware of a wide range of measuring, cutting, shaping, joining and finishing techniques</li> <li>• Provide students with the opportunity to discuss what is meant by advanced procedures. That is procedures that require the student to make informed selection and scheduling of techniques and testing to make the product</li> <li>• Support students to undertake evaluative tests to demonstrate the final product meets specifications</li> <li>• Provide opportunity for students to explore and discuss advanced procedures in terms of skilfulness and efficiency</li> <li>• Ensure students have an appropriate environment, tools and materials to enable students to work safely with resistant materials to make a product</li> <li>• Provide opportunity to explore what techniques are most suitable for use with a variety of resistant materials</li> <li>• Provide students with the opportunity to schedule and practice a range of techniques and tests to develop quality products. This may be through completing a range of individual products and/or joint class projects/activities.</li> </ul>	<p>To support students to implement complex procedures to make a resistant materials product, at level 8, teachers could:</p> <ul style="list-style-type: none"> <li>• Support students to be aware of a wide range of measuring, cutting, shaping, joining and finishing techniques.</li> <li>• Provide students with examples of assembly reference points, lines and/or planes and support them to identify or establish their own reference points, lines and/or planes.</li> <li>• Provide students with examples of how parts can be interlocked and explore techniques to enable this to occur.</li> <li>• Provide students with the opportunity to discuss what is meant by 'complex procedures' – these are procedures that require the student to make informed selection and scheduling of techniques and testing to make a product that incorporates two or more assembled parts which require accuracy and precision.</li> <li>• Support students to undertake evaluative tests to demonstrate the final product meets specifications.</li> <li>• Support students to explore and discuss complex procedures in terms of skilfulness and efficiency.</li> <li>• Ensure students have an appropriate environment, tools and materials to enable students to work safely with resistant materials to make a product.</li> <li>• Support students to explore techniques that are most suitable for use with a variety of resistant materials and allow parts to be effectively assembled with accuracy and precision.</li> <li>• Support students to schedule and practice a range of techniques and tests to develop quality products. This may be through completing a range of individual products and/or projects/activities.</li> </ul>
<b>INDICATORS</b>	<p>Students can:</p> <ul style="list-style-type: none"> <li>• undertake basic procedures to construct a product that meets specifications</li> <li>• apply given techniques and tests in a way that complies with relevant health and safety regulations</li> <li>• show independence and accuracy in the execution of basic techniques and tests</li> <li>• perform basic techniques and tests in a manner that economises time, effort and materials.</li> </ul>	<p>Students can:</p> <ul style="list-style-type: none"> <li>• undertake advanced procedures to construct a product with special features that meets specifications</li> <li>• select and apply scheduled techniques to comply with relevant health and safety regulations</li> <li>• show independence and accuracy in executing the scheduled techniques and tests</li> <li>• undertake techniques and tests in a manner that economises time, effort and materials.</li> </ul>	<p>Students can:</p> <ul style="list-style-type: none"> <li>• undertake complex procedures to construct a product that integrates parts with accuracy and precision, and meets specifications</li> <li>• identify and/or establish key reference points lines and/or planes required for integration of parts</li> <li>• select and apply scheduled techniques to comply with relevant health and safety regulations</li> <li>• show independence and accuracy in executing the scheduled techniques and tests</li> <li>• undertake techniques and tests in a manner that economises time, effort and materials.</li> </ul>
<b>AS</b>	<p><b>AS91057 Construction and Mechanical Technologies 1.20</b> <i>Implement basic procedures using resistant materials to make a specified product</i></p>	<p><b>AS91344 Construction and Mechanical Technologies 2.20</b> <i>Implement advanced procedures using resistant materials to make a specified product with special features</i></p>	<p><b>AS91620 Construction and Mechanical Technologies 3.20</b> <i>Implement complex procedures to integrate parts using resistant materials to make a specified product</i></p>
	<a href="#">Level 1 Construction &amp; Mechanical standards &amp; assessment resources</a>	<a href="#">Level 2 Construction &amp; Mechanical standards &amp; assessment resources</a>	<a href="#">Level 3 Technology achievement standards &amp; assessment resources DRAFT</a>