

# Year 9 Engineering Making Engineered Products



Learning Objective	Assessment Criteria	This is what you could get in level 1/2 Engineering at end of year 11.		
		Level 1 Pass (Equivalent to E at GCSE)	Level 2 Pass/Merit (Equivalent to C/B at GCSE)	Level 2 Distinction/Distinction* (Equivalent to A/A* at GCSE)
Be able to 'read' an engineering drawing.	<b>1.1 Read and interpret engineering drawings.</b>	I can identify the units, metric or imperial, used to produce the drawing. I can talk about the scale used to produce the drawing. I can identify some different lines and measurements.	I can read a drawing and identify a range of drawing elements: hidden detail, centre lines, construction lines, dimension lines, materials used, date, and scale. I can say whether the drawing is 2D or 3D identifying the projection used; isometric, third angle orthographic.	I can confidently and independently read a drawing identifying a range of drawing elements: hidden detail, centre lines, construction lines, dimension lines, materials used, date, and scale. I can say whether the drawing is 2D or 3D identifying the projection used; isometric, first or third angle orthographic.
Be able to measure and accurately 'Mark out' materials.	<b>1.2 Select and use engineering marking out tools.</b>	With some help and guidance, I can use marking out tools to mark out the materials I will use to make my engineered product.	I can select and use, with minimal guidance, marking out tools to mark out the materials I will use to make my engineered product. I can identify an engineer's steel rule, pencil, Scriber, Engineer's square, Marking gauge, Centre/dot punch, Callipers.	I can confidently and independently select and use marking out tools to mark out the materials I will use to make my engineered product. I can identify an engineer's steel rule, pencil, Scriber, Engineer's square, Marking gauge, Centre/dot punch, Callipers.
Be able to identify different engineering tools & equipment.	<b>1.3 Describe the purpose of common engineering tools &amp; equipment found in an engineering environment.</b>	I can name and write a sentence about at least 3 engineering tools. I can sketch or find a picture of each.	I can describe the purpose of at least 5 examples of engineering tools & equipment. I am able to find pictures or sketch them and add descriptive labels.	I can describe in detail the purpose of a wide range of engineering tools & equipment. I can identify and write about variations in the equipment. I am able to find pictures, sketch them, and add descriptive labels.
Be able to Select the correct engineering tools & equipment needed to make an engineered product.	<b>1.4 Select the most appropriate common engineering tools &amp; equipment for an identified purpose.</b>	With some guidance I am able to select the correct tool required to complete a given practical task.	I am able to select the correct engineering tools & equipment required to complete a given practical task. I am able to say why the tool is the most appropriate for the task I have been given.	I am able to select the correct engineering tools & equipment required to complete a given practical task. I am able to clearly explain why the tool is the most appropriate by comparing to other engineering tools & equipment.
Be able to use engineering tools & equipment correctly.	<b>1.5 Perform operations with common engineering tools &amp; equipment, for an identified purpose.</b>	I am able to use a range of engineering tools & equipment with some success. I may need help and guidance whilst using them.	I am able to use a range of engineering tools & equipment. I can adjust and alter my techniques to improve ease of use, and quality of outcome. I use the tools with little help or guidance.	I am able to demonstrate skill and ability with a range of engineering tools & equipment. I am able to adjust, develop and modify my techniques through analysis and evaluation. I use the tools independently and can offer some guidance to my peers.
Be able to 'Evaluate' a completed engineered product.	<b>1.6 Perform a product evaluation on the engineered product made in the academy workshop.</b>	I am able to write sentences that describe what I have managed to achieve by making my engineered product. I can suggest ways that I could improve or modify my product.	I am able to write in some detail about the processes I have used to make my product. I can suggest ways to improve or modify my product. I can make suggestions about alternative materials that could have been used to make my product.	I am able to write in detail about the processes I have used to make my product. I can suggest ways to improve or modify my product. I can write in detail about alternative materials and techniques that could have been used to make my product.
To be able to identify risks in the workshop	<b>1.7 Demonstrate a safe working environment throughout</b>	I am able to work safely in a workshop and recall 3 of the safety rules.	I am able to work safely in the workshop. I have due respect for my own safety and that of others. I am able to carry out a risk assessment on at least two of the engineering tools & equipment I have used.	