

**Learning overview for Design & Technology**

**Year Group: 10**

<b>Term</b>	<b>Key topics / scheme of work</b>	<b>What most pupils will learn</b> (prior assessment may alter starting point & content)	<b>Key skills used</b>	<b>How will this learning be assessed?</b>
Term 1	<i>Vacuum forming project</i>  <i>Brass ring project</i>	Use the design process. Create a quality product using plastics, wood and the vacuum forming process.  Using brazing, create a brass ring.	Cutting and shaping materials using hand tools and working with thermo plastics.  Cutting shaping and forming with metal.	Ongoing teacher assessment. Short tests. Assessment of homework.
Term 2	<i>CNC and CAD work.</i>	Designing for a third party. Create a product using a vinyl cutting machine.	Use of the vinyl cutter machine.	Ongoing teacher assessment. Short tests.
Term 3	Automaton project.	Study or mechanisms, levers, cams.	Understand mechanisms and cams by making card models.	Ongoing teacher assessment. Short tests.
Term 4	Electronics module	Understand electronic principles including microprocessors.	Soldering using a PCB and components.	Ongoing teacher assessment. Short tests. There is a mock exam at the end of term 4 which will assess pupil progress before starting the controlled assessment project.
Term 5	Various short tasks that integrate with theory lessons.	For example, the analysis of different adhesives.		Ongoing teacher assessment of Controlled Assessment.
Term 6	<i>NEA (course work).</i> <i>Revision of key words</i>	Create a design folder to solve a problem set by the AQA exam board. In 2018 it was to help promote healthy living.	Pupils will investigate and uncover a real-life problem and start to investigate this ready for continuation in September of Yr. 11.	Ongoing teacher assessment of Controlled Assessment.

All terms	<i>Theory</i>	A considerable amount of theory work is integrated with the projects.		An end of year mock exam. Ongoing tests and teacher assessment. Some questions are set for Homework.
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