

SUBJECT	A Level Design Technology	YEAR	13
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Why do we study Innovations - Design Technology? The curriculum in this subject provides students with the knowledge to **think creatively** in order to **solve problems** to **meet the needs of society and the wider world**.

What you have learned before	What you will learn this year	Where you can read more
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Create

<ul style="list-style-type: none"> • Communication of design ideas – drawing techniques • Computer Aided Design (CAD) modelling exercises • Design challenges • Prototype development • Using and working with specialist materials – card, timber, polymers 	<p>NEA - Section C and D</p> <ul style="list-style-type: none"> • Develop a wide range of creative designs avoiding fixation. • Experiment with a wide range of 2d/3d drawing methods • Use CAD and physical modelling – designs are fully annotated including user feedback to modify designs <p>NEA – Section E</p> <ul style="list-style-type: none"> • Make an accurate prototype using appropriate specialist tools, equipment, materials and processes. Apply a suitable surface finish. • Evidence your making skills in your manufacturing specification. Fully test the prototype including user testing 	<ul style="list-style-type: none"> • newdesign magazine • www.designboom.com/ • Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days. Jake Knapp
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Evaluate

<ul style="list-style-type: none"> • Evaluation as part of the iterative cycle • Annotations on designs • Consider the views of others 	<p>NEA – Section F.</p> <ul style="list-style-type: none"> • Constantly analyse and evaluate throughout the design and make process. Evaluate against the specification. • Modify your prototype in light of evaluations 	<ul style="list-style-type: none"> • AQA AS/A-Level Design and Technology: Product Design
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Investigation

<p>Applying Maths and Science</p> <ul style="list-style-type: none"> • Paper 1 – technical principles – materials & applications, performance characteristics, use of fixings, adhesives and finishes. • Forming, redistribution and addition processes, health and safety, designing for manufacturing, maintenance, repair and disposal. <p>Paper 2 – Designing and making principles - design processes, design theory, product life cycle, responsible design.</p> <ul style="list-style-type: none"> • Accuracy in design and manufacture • Research and investigation self-guided learning tasks 	<p>NEA – Section A and B</p> <ul style="list-style-type: none"> • Identify, investigate design possibilities, develop a challenging brief. • A detailed and measurable specification is written reflecting research findings • Maths and Science application <p>Written exam</p> <p>Paper 1 – Technical principles - digital design and manufacture, modern industrial practice, feasibility studies, protecting designs.</p> <ul style="list-style-type: none"> • 120 marks. <p>Paper 2 – Designing and making principles – technology & cultural changes, national and international standards, design for manufacture.</p> <p>Section A: Product Analysis: 30 marks.</p> <p>Section B: Commercial manufacture: 50 marks</p>	<ul style="list-style-type: none"> • AQA AS/A-Level Design and Technology: Product Design • Essential Maths Skills for AS/A-Level Design and Technology • My Revision Notes: AQA A Level Design and Technology: Product Design
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