RUSHCLIFFE SPENCER ACADEMY

SUBJECT	A Level Product Design	YEAR	12

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
Create		
NEA – develop a wide range of creative designs avoiding fixation. • Experiment with a wide range of 2d/3d drawing methods • Include user feedback to modify designs • Make an accurate prototype using appropriate specialist tools, equipment, materials and processes. Apply a suitable surface finish. • Evidence your making skills • Prototype testing and user testing	• 2d and 3d Communication techniques • Iterative, user centred, the work of others • Focused practical challenges working with specialist materials • Select and use appropriate tools, equipment and processes accurately, applying quality control and safe working practices • Develop and refine practical skills • Model and test prototypes	• Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days. Jake Knapp • newdesign magazine www.designboom.com/ • AQA AS/A-Level Design and Technology: Product Design
Evaluate		
• Constantly analyse and evaluate throughout the design and make process. • Evaluate against the specification. • Modify your prototype in light of evaluations	• Critical analysis and evaluation throughout design & make activities, including products • Third party testing and feedback used to inform design decisions and modifications. • Evaluate against the brief and specification during design development and realisation	• AQA AS/A-Level Design and Technology: Product Design
Investigation		
NEA – Section A and B – Investigation of exam board context • Design Brief and Specification. The specification must be measurable **Written exam** Paper 1 preparation. Section A – Core technical principles. Section B – Specialist technical principles. Section C – Designing and making principles. **Maths and Science application**	• Applying Maths and Science knowledge • 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. • Paper 2 – Designing and making principles - design processes, design theory, product life cycle, responsible design. • Accuracy in design and manufacture • Research and investigation self-guided learning tasks	• Essential Maths Skills for AS/A-Level Design and Technology • AQA AS/A-Level Design and Technology: Product Design • My Revision Notes: AQA A Level Design and Technology: Product Design

This creative and thought-provoking qualification gives students the practical skills, theoretical knowledge and confidence to succeed in a number of careers. Especially those in the creative industries.