

KS4 Curriculum overview: ENGINEERING

Year 10 Curriculum Map

Autumn Term	Spring Term	Summer Term
R038 1 lesson a week will cover theory and practical in the workshop. Practical tasks will involve students using a range of materials and techniques. Introduction to Engineering Design Health & Safety Design Strategies Design Brief Primary and Secondary Research Anthropometrics Product Analysis Disassembly Modelling Techniques Specification Needs & Wants of the Customer Quantitative and Qualitative Data Manufacturing Considerations Technology Push and Market Pull Standards Planned Obsolescence Circular Economy 6Rs	R038 1 lesson a week will cover theory and practical in the workshop. Practical tasks will involve students using a range of materials and techniques. Working Drawings Using CAD Drawing Software Methods of Evaluating Modelling Methods Methods of Evaluating a Design Outcome PPE 1 Revision PPE 1 Test R040 When R038 content is complete, 1 lesson a week will cover theory and practical in the workshop. Practical tasks will involve students using a range of materials and techniques. Health & Safety Hazards and Risks	R040 1 lesson a week will cover theory and practical in the workshop. Practical tasks will involve students using a range of materials and techniques. Record of Making Product Analysis Quality Function Deployment Design Specification Product Disassembly Computer Aided Design R040 NEA Preparation R039 NEA 1 lesson per week

Types of Drawings used in Engineering	R039	
Working Drawings	1 lesson a week will cover drawing skills and CAD	
	(computer aided design). CAD will involve working	
Term 1 Test Revision	through a range of tutorials.	
Term 1 Test		
R039	R039 NEA Preparation	
1 lesson a week will cover drawing skills and CAD		
(computer aided design). CAD will involve working		
through a range of tutorials.		
Join Fusion 360		
R039 Introduction		
2D Crating		
Compound Shapes		
2D Sketch Development		
Line Enhancement		
3D Oblique Drawing		
3D Isometric Drawing		
Two-Point Perspective Drawing		
Rendering Techniques		
Labelling and Annotating		
Orthographic Drawing		
Centre Lines and Dimensioning		
Assembly Drawings		
Exploded Drawings		
Sectional Views		

Year 11 Curriculum Map

Autumn Term	Spring Term	Summer Term
R039 NEA 1 lesson per week	R040 NEA 2 lessons per week	R028 Exam revision
R040 NEA Preparation 1 lesson per week	PPE 3 Revision PPE 3 Test	
PPE 2 Revision	R038 Exam Revision when NEA is complete	
PPE 2 Test		