Curriculum Overview 2022-23

DT & Engineering

YEAR 11 (Class of 2023)	Week Beg.	Data Entry Deadlines	YEAR 10 (Class of 2024)		Week Beg.	Data Entry Deadlines	Year 9 (Class of 2025)		Week Beg.	Data Entry Deadlines	Year 8 (Class of 2026)		Week Beg.	Data Entry Deadlines	Year 7 (Class of 2027)		Week Beg.	Data Entry Deadlines	
Component 1 LA B	05-Sep		Week 1 Linear & Iterative Design | OnShape Intro 1.1	R038 Topic 1: Design Strategies (7)	05-Sep	A	Oblique Sketching Challenge.	Oblique Sketching and CAD Basics	05-Sep		Measure, mark, accuracy, scroll saw cutting acrylic	Letter Box Phone holder	05-Sep		Tenon Saw	Picture Frame	05-Sep		
Component 1 LA B	12-Sep		Week 2 User-centred & Inclusive Design | OnShape Intro 1.2		12-Sep		Design a wooden toy using 2D and Oblique sketching.		12-Sep				12-Sep				12-Sep		
Isometric Drawing	19-Sep		Week 3 Design Briefs and Primary/Secondary Research | OnShape Intro 1.3		19-Sep	A	Freehand sketching with arcs and circles.		19-Sep		cutting detail shape, line bending finishing		19-Sep		coping saw		19-Sep		
2-point perspective	26-Sep	EVE	Week 4: Client, Designer, Design Brief & Specification | OnShape Intro 2.1 | Intro to Freehand Sketching		26-Sep		Crating in oblique and isometric.		26-Sep				26-Sep				26-Sep		
Componet Drawings	03-Oct		Week 5 Market Research: Surveys & Focus Groups | OnShape Intro 2.2 | **Knowledge Tests 1, 2, & 3**		03-Oct	A	Design a set of cube stress toys.		03-Oct		finishing photographing		03-Oct		disc sander scroll saw		03-Oct		
Orthographic Drawing	10-Oct	PS1	Week 6 ACCESS FM, Dissassembly & Components | OnShape Intro 2.3 | Freehand Sketching Circles		10-Oct		Design a clock part Freehand sketches		10-Oct				10-Oct				10-Oct		
Isometric Drawing	17-Oct		Week 7: Client, Designer, Design Brief & Specification | OnShape Intro 2.4		17-Oct	A	Design a clock orthographic drawings		17-Oct		Clock Designing, inspired by logos		17-Oct		disc sander scroll saw		17-Oct		
Component 3 LA A Processes, procedures &	07-Nov		Week 9: Modelling & VR & Design | OnShape Intro 2.5 **Knowledge Test R038 Design Strategies** | OnShape Intro 3.1 & 3.2	R038 Topic 1: Design Strategies (3)	07-Nov		Design a clock - making 1	Perspective Sketching & CAD Assembly	07-Nov			A Step in time	07-Nov				07-Nov		HT
Assembly, handling & recording process	14-Nov				14-Nov	A	Design a clock - making 2		14-Nov		Prototype with paper		14-Nov		disc sander scroll saw		14-Nov		
Displaying data in charts, graphs & interpreting data	21-Nov		Week 9: Modelling & VR & Design | OnShape Intro 3.3		21-Nov	PS1	Perspective Sketching - 2 point techniques - Crating & Basic Shapes		21-Nov				21-Nov				21-Nov		
PPEs	28-Nov		Week 10 Criteria, qualitative, quantative requirements | OnShape Intro 3.4		28-Nov	A			28-Nov		Draw out on Acrylic/MDF, scroll/coping saw		28-Nov		hand sanding Assemble Theory test		28-Nov		
	05-Dec		Week 11 Aesthetics & The Environment | OnShape Intro 4.1		05-Dec		Using sweep and loft in CAD to model your NES controller body and thumbsticks		05-Dec				05-Dec				05-Dec		
	12-Dec		Week 12 Production (Mass, Batch, One-Off) | OnShape Intro 4.2		12-Dec	A	**Knowledge Test**		12-Dec	A$$	Scroll/coping saw		12-Dec	A$$	Evaluation, practical marking		12-Dec	A$$	
Drawing, sketching & re-design	19-Dec		Week 13 Wasting, capital, finishing & forming | OnShape Intro 4.3		19-Dec		NES Controller buttons		19-Dec				19-Dec				19-Dec		
Expliloded diagrams & electronics evaluation	02-Jan		Week 14/15 Standards & Sustainability | OnShape Intro 4.4	R038 Topic 3: Communicating Design Outcomes (4)	02-Jan	A	Isometric sketching - Basic shapes using IsoSketch	Isometric Sketching & CAD Assembly	02-Jan		Scroll/coping saw, finishing	A Step in Time	02-Jan		Recycled materials, designing toys	Small Impacts Fabric Toys	02-Jan		X-mas
Paper 1 practise	09-Jan	PS2	Week 16 Oblique, Isometric, Orthographic, block | OnShape Intro 5.1		09-Jan				09-Jan				09-Jan				09-Jan		
Paper 2 practise	16-Jan	EVE	Week 17 Orthographic standards & conventions | OnShape Intro 5.2		16-Jan	A			16-Jan		Construction Photograph		16-Jan		cutting out materials		16-Jan		
Paper 1 practise	23-Jan		Week 18 Drawing Abbreviations (threads,		23-Jan		sometric sketching - Complex Forms - Car Body		23-Jan	PS1 EVE			23-Jan				23-Jan		
Paper 2 practise	30-Jan		Week 19 CAD advantages & limitations | OnSHape Intro 5.4		30-Jan	A			30-Jan		Evaluation, practical Marking		30-Jan	PS1	hand sewing		30-Jan		
Component 3 Exam Week	06-Feb		**Knowledge Test R038**		06-Feb		Castle Design Challengbe - Isometric - Rendering stone, metal and wood		06-Feb				06-Feb				06-Feb		
Component 2 LA A & Component 2 LA B	20-Feb		Week 20 Evaluating	R038 Topic 4: Evaluating Design Ideas (5)	20-Feb		Castle Design Challengbe - Isometric - Rendering stone, metal	Aesthetic Design	20-Feb		Teacher led model making example frame: scalpel, coping saw	Awesome Architecture	20-Feb		hand sewing	Small Impacts fabric toys	20-Feb		HT
Component 2 LA A & Component 2 LA B	27-Feb		Week 21 QFD (QualityFunction Deployment)		27-Feb		CAD Challenge - Design a mobile phone case and screen protector - initial sketches		27-Feb				27-Feb				27-Feb		
Component 2 LA A & Component 2 LA B	06-Mar		Week 22 Types of modelling for evaluation & comparison		06-Mar	PS2	CAD Challenge - Design a mobile phone case and screen protector - final sketch in perspective/isometric		06-Mar		teacher led model making cladding: coping, tenon, disc sander, scroll		06-Mar		hand sewing and stuffing		06-Mar		
Component 2 LA A & Component 2 LA B	13-Mar		Week 23 Types of Measuring Devices (accuracy, measurement & qualitvl		13-Mar		CAD Challenge - Design a mobile phone case and screen protector - 3D model parts		13-Mar				13-Mar				13-Mar		
Component 2 LA A & Component 2 LA B	20-Mar		Week 24 User testing		20-Mar	EVE	CAD Challenge - Design a mobile phone case and screen protector -		20-Mar		Finishing touches, photograph		20-Mar		evaluation and practical marking		20-Mar		
Component 2 LA A & Component 2 LA B	27-Mar	PS3	Week 1 2D sketching, freehand, crating		27-Mar		**CAD Challenge - Design a mobile phone case and screen protector - Orthographic Drawings in CAD**		27-Mar	A$$			27-Mar	A$$			27-Mar	A$$	
	17-Apr		Week 2 Compound, Oblique, Isometric	R039 Topic 1: Manual Production of Freehand Sketches (6)	17-Apr		Create a mobile phone stand protoype using corrugated card and glue gun	Prototyping in card and plastic.	17-Apr		Launch better world design brief.	Awesome Architecture	17-Apr	PS2	Learing about plastics	Key rings plastics	17-Apr		Easter
	24-Apr		Week 3 Perspective sketching		24-Apr		Create a mobile phone stand prototype using acrylic bending techniques		24-Apr				24-Apr				24-Apr		
	####		Week 4 Rendering		01-May		Create a prototype of your child's toy from Autumn Term in MDF - body		01-May		Start designing: teacher demo on drawing		01-May		design		01-May		
	####		Week 5 Labelling		08-May		Create a prototype of your child's toy from Autumn Term in MDF - axles and assembly		08-May				08-May	EVE			08-May		
GCSE Exams	####		Week 6 Isometric		15-May		Case Study - The Dyson Vaccuum Cleaner from initial sketches to prototype to final product		15-May		Student model making		15-May		drawing out and coping saw		15-May		
	####		Week 7 Orthographic		22-May		**Knowledge Test**		22-May	A$$			22-May				22-May		
GCSE Exams	05-Jun		Week 8 first vs third angle projection	R039 Topic 2: Manual Production of Engineering Drawings (7)	05-Jun		Introduction to using Google Sketchup	Design Challenge 2 & Prototype	05-Jun		Student model making		05-Jun		coping saw		05-Jun		HT
	12-Jun		Week 9 Isometric dimensions & annotations		12-Jun		Recap/Refresh on how to use Google Sketchup		12-Jun				12-Jun				12-Jun		
	19-Jun		Week 10 Engineering drawing conventions & centrelines.		19-Jun		Homeless shelter in a container challenge		19-Jun		Student model making and testing		19-Jun		finsihing		19-Jun	PS1 EVE	
	26-Jun		Week 11 Assembly Exploded, Drawings, Isometric	R039 Topic 3: Use of CAD (4)	26-Jun		Homeless shelter in a container challenge		26-Jun	PS2			26-Jun				26-Jun		
	03-Jul		Week 12 Assembly Exploded, Drawings, Isometric		03-Jul	PS3	Finish homeless shelter challenge		03-Jul		Photographs and evaluate		03-Jul		pilar drill		03-Jul		
	10-Jul		Week 13 Sectional Drawings		10-Jul		Finish final design & submit		10-Jul				10-Jul				10-Jul		
	17-Jul		CEW Week		17-Jul		CEW Week		17-Jul		CEW Week		17-Jul		CEW Week		17-Jul		