

Year 9 Design & Technology Curriculum Map		
Autumn Term	Spring Term	Summer Term
Core Skills: Sketching, formal drawing (isometric and 1 point perspective) and annotation.	Working from a Context: charity boxes (Designing and making) Graphics focus	Evolution of Design: clocks with biomimicry focus (Designing and making)
Tealight holder (Making without designing)	Design Fiction (Designing without making) Literacy focus	Sustainability Challenge (Design and modelling) Working in teams focus
Iconic Design Core knowledge focus	Advanced Modelling CAD/CAM focus	

Year 10 GCSE Design & Technology with Graphics Curriculum Map			
Component 1: Theory	Autumn Term	Spring Term	Summer Term
	Core theory: types, properties, and structure of common metals; polymers; textiles; timbers; and paper and boards.	Specialist theory: Paper & Board • Sources, origins, properties, social and ecological footprint. • Selecting paper & board for different applications • Stock forms, types, and sizes • Specialist techniques, tools, equipment, and processes • Finishing techniques & surface treatments.	Core theory: • Energy generation • Modern & smart materials; composite materials; technical textiles • Mechanical devices • Electronic systems • Programmable components
Component 2: NEA	Perfume/aftershave bottle and packaging (designing and modelling skills).	CAD/CAM Skills (using SketchUp and Corel Draw)	NEA Contextual Challenge (50%): • 1.1 Investigation of needs and research
		Practice NEA – Contextual Challenge (designing and making)	
Year 11 GCSE Design & Technology with Graphics Curriculum Map			
Component 1: Theory	Core theory: • New & emerging technology • Investigate and analyse the work of past and present designers • Using different design strategies and avoid design fixation	Revision	Revision
Component 2: NEA	NEA Contextual Challenge (50%): • 1.2 Product Specification • 2.1 Design ideas • 2.2 Review of initial ideas • 2.3 Development of design ideas into a chosen design • 2.4 Communication of design ideas	NEA Contextual Challenge (50%): • 2.5 Review of chosen design • 3.1 & 3.2 Manufacturing a quality final prototype • 4.1 Testing and evaluation	

Year 10 GCSE Design & Technology with Timbers Curriculum Map			
Component 1: Theory	Autumn Term	Spring Term	Summer Term
	Core theory: types, properties, and structure of common metals; polymers; textiles; timbers; and paper and boards.	Specialist theory: Timbers • Sources, origins, properties, social and ecological footprint. • Selecting timbers for different applications • Stock forms, types, and sizes • Specialist techniques, tools, equipment, and processes • Finishing techniques & surface treatments.	Core theory: • Energy generation • Modern & smart materials; composite materials; technical textiles • Mechanical devices • Electronic systems • Programable components
Component 2: NEA	It's a drawer! Box project (making skills).	CAD/CAM Skills (using SketchUp and 2D Design)	Litter Picker (Design and making skills)
		Practice NEA – Contextual Challenge (designing and modelling)	NEA Contextual Challenge (50%): • 1.1 Investigation of needs and research
Year 11 GCSE Design & Technology with Graphics Curriculum Map			
Component 1: Theory	Core theory: • New & emerging technology • Investigate and analyse the work of past and present designers • Using different design strategies and avoid design fixation	Revision	Revision
Component 2: NEA	NEA Contextual Challenge (50%): • 1.2 Product Specification • 2.1 Design ideas • 2.2 Review of initial ideas • 2.3 Development of design ideas into a chosen design • 2.4 Communication of design ideas	NEA Contextual Challenge (50%): • 2.5 Review of chosen design • 3.1 & 3.2 Manufacturing a quality final prototype • 4.1 Testing and evaluation	

Year 12 A Level Product Design Curriculum Map			
Component 1: Theory	Autumn Term	Spring Term	Summer Term
	• Topic 1: Materials • Topic 2: Performance characteristics of materials (polymers & metals) • Topic 3: Processes and techniques (polymers, metals) • Topic 8: Features of manufacturing industries •	• Topic 6: Effects of technological developments • Topic 7: Potential hazards and risk assessment • Topic 3: Processes and techniques (Paper & Board and Timbers)	• Topic 1: Materials • Topic 2: Performance characteristics of materials (paper & board, timbers, textiles) • Topic 4: Digital technologies
Component 2: NEA	Making skills (focus on timbers) – tables, architectural model or graphic product of choice Modelling and making skills (focus on polymers) – desk tidy Modelling and making skills (focus on metals) • Candle holder • Pewter cast jewellery CAD/CAM skills	Design and making skills – free standing timepiece • exploring different design approaches, processes, and techniques • producing designs that show cultural and historical influences • produce a final design • Production of a high-quality prototype that is appropriate to an advanced level of demand, using materials of own choice NEA Major Project (50%): 1. Identification and investigation of a design possibility	NEA Major Project (50%): • Investigation of needs and research • Design Brief & Specification
Private Study Schedule	Research and design project for a given contextual challenge Topic 10: Current legislation Topic 11: Information handling, Modelling & forward planning	Topic 7: Potential hazards and risk assessment NEA Major Project: Investigation into client or end user's needs, wants and values	NEA Major Project: Research plan; primary research into user needs and wants

Year 13 A Level Product Design Curriculum Map			
	Autumn Term	Spring Term	Summer Term
Component 1: Theory	• Topic 11: Information handling, Modelling & forward planning • Topic 12: Further processes and techniques • Revision for November mock examination	Revision tasks	Revision for summer examination
Component 2: NEA	NEA Major Project (50%): • Design ideas • Development of design ideas • Final design solution	NEA Major Project (50%): • Review of development & final idea • Making a high-quality final prototype • Testing and evaluating	
Private Study Schedule	NEA Major Project: Client feedback and review of design ideas; further research; modelling and testing them against the specification and client.	NEA Major Project: Diary of making; testing and evaluating product.	