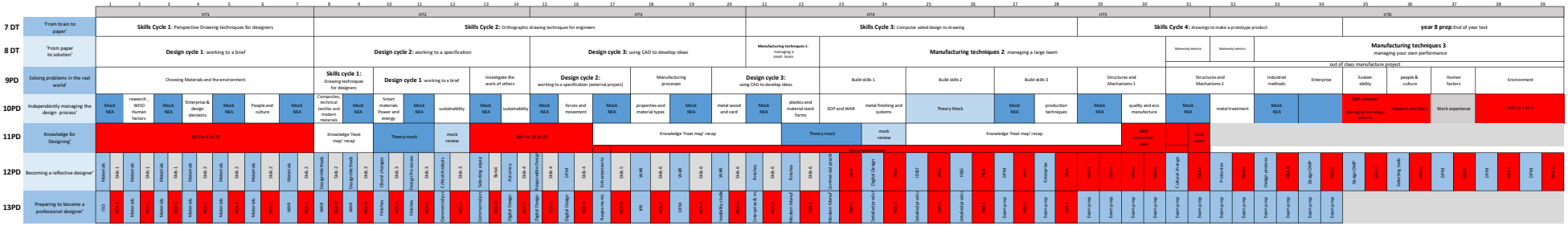
7year PD

Curriculum Intent: **To provide access to a rich world of possibilities to be an independent and successful professional designer**

Implimentation: **An engaging and challenging curriculum that builds and stretches knowledge and relates that knowledge directly to problem soving and independence**



7year **ENG**

Curriculum Intent: **To provide the skills and knowledge for students to aspire to be a professional and successful engineer**

Implimentation: **An engaging and challenging curriculum that builds knowldedge and skills through independence, teamwork and problem solving**

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
		HT1							HT2							HT3						HT4						HT5					HT6							
7 DT	'From brain to paper'	**Skills Cycle 1**: Perspective Drawing techniques for designers							**Skills Cycle 2:** Orthographic drawing techniques for engineers													**Skills Cycle 3:** Computer aided design to drawing								**Skills Cycle 4:** drawings to make a prototype product						**year 8 prep**:End of year test				
8 DT	'From paper to solution'	**Design cycle 1**: working to a brief							**Design cycle 2:** working to a specification							**Design cycle 3:** using CAD to develop ideas						**Manufacturing techniques 1**: managing a small team		**Manufacturing techniques 2**: managing a large team								Materials/ electric	Materials/ electric	**Manufacturing techniques 3**: managing your own performance						
																																out of class manufacture project								
9ENG	Working with systems and modern materials'	iron/steel	W.A.R processes	Sectors	robotics and CNC			Scales of production	SMART materials		composites	developments in new tech		welding		Assessment		environment issues				assessment		3D CAD						Systems and control Robot build						basic electrical systems			prep for Year 10	
10ENG	Role of Engineering in the real world	Engineering Sectors			Engineering fnctions				C1A Assignment			Engineering Design											C1B Assignment				MOCK		Materials and Processes							Assignment C2A	Understanding and interpreting engineering data		Work Exp	Understanding and interpreting engineering data
11ENG	Learning to anaylse for a purpose'	Understanding and interpreting engineering data				Responding to a engieering brief to redesign			C3 External assignment		Reverse engineering techniques						C2B reverse eng assignment		Handskills and processes recap			C2C remake assignment			resubmissions and grade enhancement															
12ENG	using science as a design advantage'	electrics		Smart	Stress/ strain analysis	material prop	Metallurgy		polymerisation	energy			fluid flow, gearing systems	heat	recap		External exam	Industrial Design theory and application										Unit 4 assignment period					Purpose of mech systems	Types of mech systems	mech components	mech components	Electrical Drives	Mechanical Design Considerations		
13ENG	Applying science and systems to practical solutions	Mech System Ass	maintenance req		Saftey rules inindustry		Testing		Controlled U2 NEA					over run		Unit 2 Mech systems submission	resit prep															Resit deadline all units		resit opportunity U1						