OCR Engineering Design (J822)

Year 10 Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EXAM UNIT	**R038 Principles of engineering design** *TA1: Designing processes* 1.1 The stages involved in design strategies 1.2 Stages of the iterative design process	**R038 Principles of engineering design** *TA1: Designing processes* 1.2 Stages of the iterative design process *TA3: Communicating design outcomes* 3.1 Types of drawing used in engineering	**R038 Principles of engineering design** *TA3: Communicating design outcomes* 3.2 Working drawings 3.3 Using CAD drawing software *TA2: Designing requirements* 2.3 Influences on engineering product design	**R038 Principles of engineering design** *TA2: Designing requirements* 2.3 Influences on engineering product design *TA1: Designing processes* 1.2.2 Make and evaluate	**R038 Principles of engineering design** *TA4: Evaluating design ideas* 4.2 Modelling methods	**R038 Principles of engineering design** *TA1: Designing processes* 1.2.2 Make and evaluate *TA4: Evaluating design ideas* 4.2 Modelling methods
NEA UNITS		**R039 Communicating designs** *TA1: Manual production of freehand sketches* 1.1 Produce a freehand sketch of a design idea	**R039 Communicating designs** *TA1: Manual production of freehand sketches* 1.2 Produce an isometric sketch for a design proposal *TA2: Manual production of engineered drawings* 2.1 Produce a third angle orthographic projection drawing 2.2 Produce an assembly drawing for a design proposal	**R039 Communicating designs** *TA3: Use of computer aided design (CAD)* 3.1.1 Produce a 3D CAD 3.1.2 Produce 3D CAD assemblies of components **R039 NEA ASSESSMENT**	**R039 Communicating designs** *TA3: Use of computer aided design (CAD)* 3.1.2 Produce 3D CAD assemblies of components **R039 NEA ASSESSMENT** **R039 SUBMISSION** **R040 Design, evaluation and modelling** *TA1: Product evaluation* 1.1 Carry out product analysis - ACCESS FM 1.2 Compare products *TA2: Carry out product disassembly*	**R040 Design, evaluation and modelling** TA2.1: *Methods of modelling* 2.1.1 Virtual CAD 3D 2.1.2 Physical modelling