



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
UNIT 3	Completion of Learning Aims B, C and D through iterative design exercises. This will include working through past papers, exemplar materials and	Completion of Learning Aims B, C and D through iterative design exercises. This will include working through past papers, exemplar materials and	Completion of Learning Aims B, C and D through iterative design exercises. This will include working through past papers, exemplar materials and	Completion of Learning Aims B, C and D through iterative design exercises. This will include working through past papers, exemplar materials and	Completion of Learning Aims B, C and D through iterative design exercises. This will include working through past papers, exemplar materials and	Completion of Learning Aims B, C and D through iterative design exercises. This will include working through past papers, exemplar materials and
Knowledge & Skills development	examiners reports. examiners reports. examiners reports. examiners reports. examiners reports. examiners reports. • Unit 3. Engineering Product Design and Manufacture. • Learning Aim A Design triggers, challenges, constraints and opportunities, and materials and processes • A1 Design triggers • A2 Design challenges • A3 Equipment level and system level constraints and opportunities • A4 Material properties • A5 Mechanical power transmission. • A6 Manufacturing processes. • C Using an iterative process to design ideas and develop a modified product proposal • C1 Design proposals • C2 Communicating designs • C3 Iterative development process • D Technical justification and validation of the design solution • D1 Statistical methods • D2 Validating designs					
Assessment / Feedback Opportunities	Cold calling to check for understanding. Visual check on note taking. Verbal formative feedback for Unit 3.					
Cultural Capital						

	Pupils develop understanding of Engineering sectors and roles involved.				
SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	Working in groups to discuss Engineering sectors helps promote tolerance, respect for each other.				
Reading opportunities	Reading research on Engineering sectors and organisations.				
Key Vocabulary	Engineering, aerospace, automotive, communications, electrical/electronics, mechanical, environmental, transport, rail and marine				
Digital Literacy	Use internet to help research.				
Careers	Pupils develop knowledge of the following engineering sectors and the roles included; aerospace, automotive, communications, electrical/electronics, mechanical, environmental, transport, rail and marine.				