Subject	**Engineering**	Year Group	**10**			
	Term/Unit 1	Term/Unit 2	Term/Unit 3	Term/Unit 4	Term/Unit 5	Term/Unit 6
Scheme title	NEA Mastery and Pre-Release Preparation.	NEA	NEA	NEA	Examination Intensive and Extended Response Mastery.	Qualification finished
Purpose of scheme	The purpose of this unit is to deconstruct the official NCFE marking criteria to ensure pupils understand exactly how to access the highest marks in their upcoming NEA. By revisiting the core pillars of research, technical drawing, and production planning, pupils will build a "Research Pack" template that eliminates guesswork. This unit serves as the final bridge between guided learning and the independent discipline required to succeed in a formal engineering assessment.				The primary purpose of this unit is to consolidate all theoretical knowledge from the NCFE Level 1/2 Engineering specification. With the exam date of 20 May 2026 fast approaching, the focus is on "last chance" revision and the mastery of the 9-mark extended writing questions. Pupils will learn how to structure complex engineering arguments, ensuring they can synthesise their practical workshop experience with theoretical principles to access the highest marks in the descriptive and evaluative sections of the paper.	
Knowledge in sequence	Pupils begin by examining the NCFE mark scheme, identifying the specific "descriptors" required for Distinction-level work. They move on to recapping the architecture of an effective research section, focusing on how to synthesise data rather than just collecting it. Following this, pupils revisit advanced CAD (Onshape) and manual drawing conventions to ensure their technical communication is industry-standard. The sequence concludes with a deep dive into production planning—specifically focusing on risk assessments and time-management gantt charts—and the theoretical framework for a critical, evidence-based final evaluation.				The unit begins with a rapid "spiral" recap of the core theory areas: engineering disciplines, materials, tools, and communication. Once foundational knowledge is verified, pupils move into the mechanics of the exam paper itself. They will study the specific command verbs used by NCFE (e.g., "Discuss," "Evaluate," "Justify") and learn how these relate to mark distribution. The sequence culminates in the repetitive practice of 9-mark questions, using a "Point, Evidence, Explain, Link" (PEEL) or similar structure adapted for engineering contexts.	
Skills	Pupils will refine their ability to perform high-level independent research and data analysis. They will sharpen their technical drawing precision, ensuring that both hand-drawn and CAD outputs include all necessary tolerances and assembly instructions. Furthermore, pupils will develop "predictive" engineering skills, learning how to identify potential hazards through formal risk assessments and create logical, step-by-step production plans that account for material lead times and machinery availability.				Pupils will develop advanced technical writing and critical analysis skills. They will learn to "read" an exam question to identify exactly what the examiner is looking for. Specific focus will be placed on time management—ensuring pupils can plan and execute a high-quality 9-mark response within the allocated timeframe. Additionally, they will refine their ability to draw upon real-world examples and their own practical projects (like the Door Hook and Dump Truck) to provide concrete evidence in their written answers.	
Key words	Mark scheme, descriptors, research pack, synthesise, CAD, orthographic, production planning, risk assessment, Gantt chart, Quality Control, evaluation, evidence-based.				Extended response, command verbs, justification, evaluation, synthesis, exam technique, mark scheme, command words, revision, retrieval, PEEL structure, specification.	
End point	By the end of this unit, pupils will have produced a "Mock NEA Toolkit" that includes research templates, drawing checklists, and a clear understanding of the assessment timeline. They will possess the confidence to interpret a new engineering brief independently and will be fully prepared to begin their official NEA in Term 2.				By the end of this unit, pupils will be fully prepared for the NCFE external examination. They will have a portfolio of model answers for 9-mark questions and a refined revision toolkit. Pupils will enter the exam hall with the confidence to deconstruct complex questions and provide technical, well-structured engineering responses.	
Assessment Methods	Assessment is focused on the "NEA Readiness Portfolio"—a collection of the research and drawing recaps produced during the term. Pupils will also undergo a "Mark Scheme Literacy" test, where they must accurately grade sample pieces of work against NCFE criteria to demonstrate they understand the requirements for success.				Assessment is focused entirely on exam simulation. Pupils will complete weekly timed "check-point" questions, focusing specifically on the 9-mark extended tasks. The unit concludes with a full, timed mock examination using the most recent past paper, which will be marked and moderated to provide a final accurate prediction of their exam performance.	