Subject: Design Technology					
Year group Year 11					
Term	Composite *Topic*	Components (declarative) *To know that*	Components (procedural) *To know how to*	Key vocab Tier 3	CEIAG *Careers*
Autumn 1	**Practical**: Official NEA	**To know what** stakeholders are **To know what** potential users are **To know what** users require based on wants and needs **To know that** primary research will inform and influence design decisions **To know what** emperical modelling is **To know what** design iteration is	**To know how** to interpret primary research and analyse results **To know how** to generate initial design ideas **To know how** to gather feedback and implement findings **To know how** to generate a range of design ideas **To know how** to avoid design fixation **To know how** to use a range of skills (physical and paper based) to develop ideas **To know how** to safely use a range of tools and equipment	Stakeholder Rendering Perspective Isometric	Games designer, Programmer, Interior Designer, Joiner, Architect, Graphic Designer, Illustrator, Animator, Engineer,
Autumn 2	**Practical**: Official NEA	**To know that** design ideas should be solution focused **To know what** design fixation is **To know what** empirical modelling is **To know that** health and safety rules should be followed	**To know how** to work safely within a workshop to prevent hazards and injury **To know how** to use tools and equipment safely and independently **To know how** to annotate and present design ideas **To know how** to develop and improve design ideas through modelling	Orthographic	

		To know what the iterative design process is **To know what** materials are suitable for intended outcome	**To know how** to identfy potential needs to inform solutions **To know how** to identify potential improvements		
Spring 1	**Practical:** Official NEA	**To know that** empirical modelling is a method of communication **To know that** design development should be informed by user feedback **To know that** CAD Modelling is a method of communication and design realisation **To know what** stages, need to be followed to produce a final outcome	**To know how** to use a range of workshop tools safely **To know how** to create empirical models **To know how** to gather user feedback and implement this when developing design ideas **To know how** to use CAD software to illustrate design thinking **To know how** to adapt and change an outcome according to feedback **To know how** to plan the make of design and consider timings and the tools & equipment required **To know how** to present design ideas using fundamental presentation skills	Aesthetics Ergonomics	
Spring 2	**Practical:** Official NEA	**To know what** materials can be used to create the final prototype **To know that** user feedback should inform design development **To know that** different tools have uses for specific materials	**To know how** the stages of empirical modelling can inform a 3D understanding of potential designs **To know how** to use tools and equipment safely and successfully **To know how** to provide photographic evidence to communicate the making process effectively		

		To know that a making diary is used to document progress	**To know how** to present a final solution		
Summer 1	**Practical:** Official NEA	**To know that** evaluations should reflect on areas of success and areas for improvement **To know that** evaluations inform product viability **To know that** evaluations highlight further improvements **To know that** user feedback influences improvements through prototype evaluation	**To know how** to identfy improvements **To know how** to gather user feedback to identify potential improvements **To know how** to effectively evaluate a final outcome		
Summer 2	**Theory:** Core Technical Principles Exam Techniques	**To know that** materials are converted from a raw state before manufacture **To know that** timbers are available in stock forms **To know that** polymers are available in stock forms **To know that** sustainability issues are key to design and product generation **To know** exam techniques offer clarity when answering extended questions	**To know how** to convert raw material amounts into usable materials **To know how** to calculate waste when using materials **To know how** to process timbers and polymers to create manufacturing materials **To know how** to consider sustainability in design and product manufacture **To know how** to evaluate a product using the Life Cycle Assessment **To know how** renewable resources impact manufacture		

			To know how the use of fossil fuels impacts the environment **To know how** to successfully use exam techniques when answering extended questions		