



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
12	<u>Technical Principles</u> Materials and their applications Performance characteristics of materials Working with materials <u>Designing and Making Principles</u> Design methods and processes Design theory <u>Practical Application</u> STEM Festival Live Design Brief Research and initial concepts	<u>Technical Principles</u> Enhancement of materials The use of finishes Working with materials <u>Designing and Making Principles</u> Technology and cultural changes Design processes <u>Practical Application</u> Design development Modelling and iterative design	<u>Technical Principles</u> Forming, redistribution and addition processes Working with materials <u>Designing and Making Principles</u> Critical analysis and evaluation Accuracy in design and manufacture <u>NEA Preparation</u> Introduction to the NEA Research and context exploration	<u>Technical Principles</u> Modern and industrial scales of production Requirements for product design and development <u>Designing and Making Principles</u> Selecting appropriate tools, techniques and processes <u>NEA</u> Investigating Client and user research Product analysis	<u>Technical Principles</u> Digital design and manufacture Health and Safety Feasibility studies <u>NEA</u> Design Brief and Specification Initial design ideas Modelling	<u>Technical Principles</u> Design for manufacturing, maintenance, repair and disposal Design communication <u>Designing and Making Principles</u> Responsible design Design for manufacturing and project management <u>NEA</u> Designing and developing Modelling and client feedback
13	<u>NEA</u> Design development Prototype manufacture Testing and refinement Quality control <u>Designing and Making Principles</u> Accuracy in design and manufacture Project management	<u>NEA</u> Prototype manufacture Testing and modification Client feedback Recording design decisions <u>Technical Principles</u> Protecting designs and intellectual property Design communication	<u>NEA</u> Final testing Evaluation against specification Client evaluation Further improvements <u>Technical Principles</u> Enterprise and marketing in the development of products <u>Designing and Making Principles</u> Responsible design Critical analysis and evaluation Life Cycle Assessment	<u>Technical Principles</u> Design for manufacturing, maintenance, repair and disposal Revision of Technical Principles <u>Designing and Making Principles</u> National and international standards in product design Revision of Designing and Making Principles <u>Examination Preparation</u> Synoptic examination questions Maths and science application	<u>Preparation for Final Examination</u> Revision and review of prior learning Paper 1: Technical Principles Paper 2: Designing and Making Principles Maths and science questions Practice papers Exam technique	<u>Preparation for Final Examination</u> Targeted revision Retrieval of key knowledge Practice papers Extended-response questions Exam technique