	Topic	Key concept – what do I want the students to learn from this unit?	What knowledge will they acquire?
YEAR 10 Design Technology 2020- 2021 OVERVIEW			
10 - half term 1	Textiles pencil case.	Working with fabric, e-textiles, smart materials modern materials technical textiles composite materials	Construction techniques. Properties and use of a range of materials (textiles and modern/smart)
10 – half term 2	Technical drawing ** not taught in KS3	• Presentation of design work • Techniques to enhance drawing presentation • Accuracy • Formal drawing styles	• Isometric drawing • Two point perspective • Third angle orthographic projection
FORMAL ASSESSMENT			
10 – half term 3 (part)	Design Technology Exam technique and revision	Confidence to revise out of school and how to apply knowledge to the exam.	How to read and understand the question. How to structure short answers. How to structure long answers. Use of key technical vocabulary. Using numeracy to solve problems. How to revise and importance of revising early.
10 – half term 3 (part) and half term 4	Design Technology Environmental and Sustainability	Source of materials from finite and non finite sources Disposal of product/waste Designing for sustainability Energy generation (traditional and renewables)	Finite and non-finite sources. waste disposal. Product efficiency, pollution global warming. Planned obsolescence & design for maintenance. Ethics of design. Energy generation Arguments for and against power generation methods
10 – half term 5	Design Technology Wider impact of technology in industry Specialist materials	Wider impact of new and emerging technology in industry Systems approach to designing Specialist knowledge of timbers Knowledge of smart, modern and composite materials	Use of enterprise to fund business innovation Market pull and technology push, anthropometrics, ergonomics, Automation, CAD, CAM, JIT, FMS, lean manufacturing, Inputs, process, outputs and programmable systems

	Topic	Key concept – what do I want the students to learn from this unit?	What knowledge will they acquire?
			Specialist timber knowledge, smart, modern and composite materials
10 – half term 6	Design Technology Start NEA 50% of overall course. **NEA work will be continued in year 11	Identify and investigate design possibilities Follow the design process independently. Design and develop a product to meet users needs for a given design context	• Investigate the context • Identify the user • Identify the problems • Carry out a range of research specific to their design context • Produce a design brief and specification
FORMAL ASSESSMENT			