KS4 Y10 GCSE CURRICULUM OVERVIEW

SUBJECT: DESIGN & TECHNOLOGY

		Topics being taught	What you will be assessed on	How you can support at home
AUTUMN TERM		Materials and their working properties Core technical principles	An introduction to the different materials and their properties for core skills - Material categories, properties, forces & stresses, scales of production, ecological and social footprint.	Encourage students to look at different products to observe the materials they are made from. And that different materials have different qualities Support home learning tasks
	OCTOBER 1/2 TERM	Designing principles	Designing using existing data and the work of others. Difference between primary and secondary research. Famous designers and their work. Design Brief and Specification. Designing strategies.	Explore Famous designers and their work – such as Apple, Braun, Dyson, Philippe Starck, Charles and Ray Eames, Dieter Rams. Encourage drawing at home in spare time. Support home learning tasks
	CHRISTMAS	Designing principles Making principles	Communicate design ideas using different media and techniques. Drawing and communication method. Materials management. Tools, equipment, techniques & finishes. Source, origins & properties Ergonomics/Anthropometrics	Encourage drawing at home in spare time Use of PC/laptop to operate CAD Supply drawing equipment – isosketch, paper, pencils etc. Support home learning tasks
SPRING TERM	FEB 1/2 TERM	Specialist materials New and emerging technologies	Use a wide range of complex materials & components–specifically timbers. Working with specialist materials (timbers) Commercial manu-facturing, surface & treatments and finishes. New/emerging technologies. Sustainability and the environment People, culture and society	Encourage drawing at home in spare time Use of PC/laptop to operate CAD Supply drawing equipment – isosketch, paper, pencils etc. Support home learning tasks
	EASTER	New and emerging technologies	The impact of new & emerging technologies on industry, enterprise, sustainability, people, culture, society & the environment, production techniques & systems. Mechanical Devices Levers & Linkages. Quality Control and Quality Assurance	Discuss how products and technology has evolved during their lives – the advances in modern technology. Support home learning tasks
SUMMER TERM	MAY 1/2 TERM	Energy, systems, materials and devices Start of NEA	Developments in modern and smart materials, composite materials and technical textiles. Investigation Section A of NEA based on AQA Contexts released June 1st. What areas to research – making research relevant to project. Client research (needs & wants). Work of others	Support home learning tasks. NEA projects will be bespoke to each student, discuss these and help with investigations/research tasks.

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