GCSE Product Design Curriculum Unit Overview Year 11

Students should have completed the first section of their NEA. Students who are behind will be given the opportunities to catch-up within lesson time. It is important that students complete the comprehensive checklists currently provided on Teams. These are/will be used to identifying missing sections and weakness areas. By Autumn half term all students should have completed Sections A and B or the NEA and self-assessed their folders. Those who have not will be given targeted support to enable this. There will be further opportunities for catch-up with specific home learning tasks where learners will be able to draw-upon a large amount of NEA reference material on Teams.

NEA: Students will be required to do an NEA audit to identify gaps. This will require revisiting the design context, and mind map of the proposed research avenues. From this, students should be able to summarise weaknesses that can be addressed through extensive NEA exemplar library on Teams.

Exam Theory: This will resume after the catch up period as gaps in the NEA must take priority. Exam theory gaps will be addressed throughout the year using an extensive library of lessons on Teams.

GCSE Product Design - Year 11 Autumn 1 – Learners continue the 35-page NEA or Coursework Folder which is 50% of their GCSE				
Specification Content	**What knowledge, understanding and skills will we gain?**	**What does mastery look like?**	**How does this build on prior learning?**	**What additional resources are available?**
NEA (coursework 50% of GCSE) Section C: Generating design ideas Section D: Developing design ideas	Knowledge: Learners start revisiting the material already covered in Y10 within the context of NEA. Understanding: Leaners are proficient in the different creative design strategies they can draw upon to communicate their design ideas Skills: Develop sketching, annotating, rendering skills. Are proficient in the iterative design process.	• Successfully submit section A & B to deadline (from last term) • Learners show a clearly progressive folio where one decision leads onto another. • continuously analyse and evaluate their work • Learners are showing highly creative and even innovative approaches and solutions to their design problems.	Revisit Section A - Identifying & investigating design possibilities Revisit Section B - Producing a design brief & specification Note: Having completed two mini folios (Memphis bottle opener and Art Deco clock) learners can reference this prior learning during their actual NEA under the exam rules	NEA tracker with spaced deadlines for submission of each section. Use of TEAMs for file management and versioning control. Step by step checklists provided so students cannot miss off work. Dedicated support PPTs available on TEAMS to support each section. Exemplar NEAs

Theory work (in preparation for exam (50% of GCSE) Any relevant theory relevant to NEA context Mock Exam	Knowledge: Sketching techniques, modelling, CAD drawings, exploded diagrams, Isometric drawings. Understanding: Answering exactly what the exam questions ask of the. Use NEA to inform their understanding of the theory. Skills: Develop exam skills. Exam timekeeping. Hit high value questions.	• Good quality communication of designs • Modifications and alterations to the learners' design journey is informed by theory	Revisit Design strategies in previous mini NEAs	DT Seneca resource AQA Text/Exercise Book Past paper exam question database

GCSE Product Design - Year 11 Autumn 2 – Learners continue the 35 page NEA or Coursework Folder which is 50% of their GCSE				
Specification Content	**What knowledge, understanding and skills will we gain?**	**What does mastery look like?**	**How does this build on prior learning?**	**What additional resources are available?**
NEA (coursework 50% of GCSE) Section E: Realising design ideas (Or making their product prototypes)	Knowledge: Using appropriate materials, ordering material to correct stock sizes, using appropriate workshop equipment. Understanding: Can calculate costs of quantities from material orders. How many components can be made from a certain quantity of material? Skills: Using production aids effectively (Jigs and templates etc) to assist gaining consistent quality.	• Successfully submit section C & D to deadline • work with a range of appropriate materials/components • using specialist tools and equipment (CAD/CAM) • continuously analyse and evaluate their work • making prototype(s) through a variety of techniques, equipment, and skills • Learners communicate the above clearly through their digital folios. • Successfully submit section E to deadline	Reference to mini NEAs	Use of TEAMs for file management and versioning control. Step by step checklists provided. Dedicated support PPTs available on TEAMS to support each section. Links to Maths Exemplar NEAs
Theory work (in preparation for exam (50% of GCSE) Any relevant theory for NEA context but mainly looking at how a products can be manufactured commercially beyond a workshop environment	Knowledge: What production techniques would be used in industry? How could production be scaled-up? W Understanding: Use NEA to inform their understanding of the theory and suggest manufacturing approaches for roll-out of product in NEA. Skills: Develop exam skills. Exam timekeeping. Answering extended questions to mark weighting.	• Can answer extended essay style questions on materials, production techniques and specialist principles with Point-Evidence-Example approach. • Learners use the NEA as the examples in answers	Reference to NEA learning Reference to past Mini NEA practical work.	DT Seneca resource AQA Text/Exercise Book Past paper exam question database