Year 13 Curriculum Overview: Design & Technology; Product Design

RESPECT
COURAGE
RESPONSIBILITY
KINDNESS
RESILIENCE

	Topics/ content outline:	Powerful Knowledge (key concepts, skills)		What will you be assessed on?	How can you help at home?
Autumn Term	NEA and focused examination questions 1. Conduct specific project research 2. Research materials performance 3. Product Disassembly 4. Ideation 5. 2nd/ 3rd iteration concepts 6. Client and user feedback 7. Product development 8. Core – Design methods and processes 9. Core- Design Theory 10. Core- Technology and cultural changes 11. Core- Design Processes	NEA coursework, 50% of grade; • Developing expertise in project management for the A level NEA • Opportunity to demonstrate advanced understanding and insight in 3D construction methods and associated materials technology • Work with nearing commercial standards and practice of sketching, drawing and CAD skills • Extending Core Knowledge and examination skills	Core exam knowledge, 50% of grade; • Continue from year 12 • 1.12 Feasibility • 1.13 Enterprise & Marketing • 1.14 Design Communication • 2.1 to 2.10 paper 2 topics following the textbook. • Many recall paper 1 and build on knowledge and link with the NEA coursework.	• NEA on going monitoring, peer and self assessment AO2 & 3 • Specific more challenging examination questions practicing extended mark questions • ½ termly examination questions 40mins	Encourage active reading – Design & Technology Product Design by Ian Granger Resources for projects and examination Core materials are stored in Showbie. Monitor and encourage a proactive approach to the NEA schedule If asked, become a client for projects, answer questions and supporting the design process.
Spring Term	NEA and focused examination questions 1. Prototype development 2. CAD modelling 3. Planning Manufacture 4. Manufacturing the prototype 5. Manufacturing the prototype 6. Core- Critical analysis and evaluation 7. Core- Selecting tools, equipment and processes 8. Core- Accuracy in design and manufacture 9. Core – National and international standards 10. Maths in Product Design	NEA coursework, 50% of grade; • Demonstrate the discipline of industry Workshop Health and Safety • Expertly manufacturing with hand and machine tools • Master high level communication skill in completing the NEA digital portfolio • Supporting deeper Core Knowledge and examination skills	Core exam knowledge, 50% of grade; • Paper 1 & 2 mock exam. • Once NEA is complete we use all lessons for intensive revision, recall and exam question practise to support independent revision which needs to be ongoing throughout the course.	• NEA on going monitoring, peer and self assessment AO3 • Exploring and practicing past examination papers • ½ termly examination questions 40mins	Continue support with resources for projects and examination. Core materials are stored in Showbie. Persist in encouraging reading the textbook and help studying around topics with documentary watching and museum/ sites of interest to visit. Encourage active revision activities to promote long term recall for exam questions.
Summer Term	• NEA finalisation for final A level assessment before Easter Core exam knowledge; • Recall and retrieval of all topic areas. • Rehearsal of examination questions and feedback • In preparation for two exams; • Paper 1 150 minutes and 120 marks • Paper 2, 90 minutes and 80 marks				Continue support with resources for the final examinations. Core materials are stored in Showbie. Encourage active revision activities to promote long term recall for exam questions.