
 THOMAS ALLEYNE'S HIGH SCHOOL 			Curriculum Overview for: Design and Technology		Key Stage 5 Academic Year Group: 12	
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Lighting project	Lighting project	Lighting project	Investigating NEA Project Ideas.	Investigating NEA Project Ideas.	Investigating NEA Project Ideas.
Content	<p>Specification – based on Product Analysis & comparisons. Initial Ideas Morph approach + examples. Initial Ideas + Isometric sketching Tutorials. Initial Ideas. 2D/ 3D component sketches from morph table. Initial Ideas 2D/ 3D component sketches from morph table. Plus Annotation and Spec check, Modelling: Workshop basics: hot wire, Styrofoam, sanders, pillar drill. Wood lathe, Router + wood joints. Workshop basics: hot wire, Styrofoam, sanders, pillar drill Wood Lathe / Metal Lathe.</p> <p>Theory work: Material Properties Polymers: + demo: Vacuum forming, blow moulding. Wood + Processes, Router and Lathe. Metal + Lathe demo</p>	<p>Development Practical with support and demos as needed 2D CAD Corel Draw and laser cutter 3D CAD Inventor</p> <p>Y13 Coursework: Tutorials to pick a project.</p> <p>Final Idea Drawings for Lighting Project. Moodboards Final Idea CAD+Production Plan CAD / CAM +3D Printer</p>	<p>Sort Products for Analysis.</p> <p>Completion of moodboards.</p> <p>Product Analysis.</p> <p>Final Prototype practical completion.</p>	<p>NEA Coursework: Comparisons Feedback & Next Steps Survey and Interview Market Gap Analysis</p> <p>Theory work: Composites Smart Materials Energy Life Cycles</p>	<p>NEA Coursework: Survey and Interview Contextual Research Contextual – Feedback and Next Steps Survey and Interview Anthropometrics Feedback and Next Steps.</p>	<p>NEA Coursework: Situation and Problem Possible Projects Brainstorm + 3 Briefs</p> <p>MOCK EXAMS</p> <p>COURSEWORK REVIEW OF PROGRESS</p> <p>COMPLETE RESEARCH SECTION</p> <p>BRIEF AND SPECIFICATION</p>
Rationale/ Linking	All NEA work follows the Design Process. Where possible this work is linked to Theory or compared to how each process would be carried out within Industrial and Commercial settings.					
Assessment	Ongoing assessment throughout the project. Assessment for learning booklet with mark schemes and feedback.			Learning Resources	AFL Booklet with mark schemes, Exemplar folders available on shared drive and Teams. Revision and Theory notes also available.	



Curriculum Overview for: Design and Technology

Key Stage 5 Academic Year Group: 13

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	NEA Project.	NEA Project.	NEA Project.	NEA Project.	NEA Project.	
Content	Morphological Initial Table + Basic Concept Sketches – Specification (+HW 3 Weeks) Research: Check Mood, Contextual, Product Analysis + Comparisons , Market Gap, Anthro complete and printed. Initial Ideas Specification Development - Sketch, CAD, models, Theory Work: Metal Processes Composites Smart Materials + Measuring / Marking Energy Design History	Development Sketch, CAD, models Final idea - Sizes & materials ordering Presentation Drawing Orthographic Drawing Cutting list / Production plan Theory Work: Scales of Production Industrial and Commercial Practice Legislation, H&S and Patents Marketing and the 4 P's	Practical - Photo diary of production of working prototype. Feedback from design and development section – complete any next steps for homework.	Practical 3D Printing Revision of Y12 materials and processes as needed. Start revising ALL content from Y12 and 13 for the summer exam Final week of practical work in lessons and after school.	Testing and Evaluation Testing and Evaluation Feedback and Final Tweaks and sample ready for moderator Sample of work confirmed when final marks are submitted online Revision + Collation of sample folders, models and final product Revision + MODERATOR VISIT	
Rationale/ Linking	All NEA work follows the Design Process. Where possible this work is linked to Theory or compared to how each process would be carried out within Industrial and Commercial settings.					
Assessment	Ongoing assessment throughout the project. Assessment for learning booklet with mark schemes and feedback.			Learning Resources	AFL Booklet with mark schemes, Exemplar folders available on shared drive and Teams. Revision and Theory notes also available. AFL	