

THOMAS ALLEYNE'S HIGH SCHOOL

LEARNING JOURNEY



From January through to May (of Y13) All students begin manufacture of their final working prototype. Products are made to a high quality standard using a wide variety of materials, tools and automated machinery. This can include laser cutting, CNC routing and 3D printed components.



Models are used to test students ideas and feedback is gained from clients allowing development to flow into the final design stage. This includes a production plan, final isometric drawing and working drawing ready to begin manufacture of the final working prototype.

Post 18

POST-18 PATHWAY

MAY Y13

Final Exam

Final Working Prototype completed

Manufacturing of Final **Product begins**

Specification

Modelling &



JAN Y11

A detailed **Design Brief and** Specification are justified by research carried out are created which will then drive Initial Ideas forward.



A wide range of sketches are produced and compared to Specification. Feedback is aiven from clients and then improvements are identified.



All students create a variety of models based on their ideas and client feedback. An iterative design approach allows students to be creative, innovative and experiment with a wide range of processing techniques.

Sketching and

development of

Ideas

Mock Exam

of Y13, students will complete a 2 hour written exam including many aspects of theory and NEA work. The real written exam is worth 50% of their overall grade.

In Nov/ December

Research tasks and **Analysis of information**

Investigation <u>o</u>f

Students begin their A Level NEA by investigating a range of possible scenarios released by the exam board. Students are free to interpret these any way they see relevant. Analysis of existing products, surveys, mood boards and contextual research make up the majority of this section. This allows students to identify needs and wants by the user.

NEA WORK

begins... (50% of grade)



Year

13

new skills through small projects incorporating a wide range of tools, equipment and machinery. CAD is used to aid development of ideas and produce high quality working products.



Developing key skills and confidence



LUSH

Designing, developing and modelling allow students to explore, experiment and learn about new materials. How they can be processed, manipulated and finished to a high quality standard.



Students learn to use and incorporate CAD packages such as Inventor and Corel Draw 11 to enable all students to use Laser cutters and 3D Printers.







Development and Prototypes

All students to produce a small portfolio of work following the Design Process to research. write a Specification, design, develop, model make and produce a working prototype following a Brief themed on lighting.



All students learn key skills and processes in a workshop environment such as Wood turning, centre lathe work, steam bending, laminating, vacuum forming, mould producing, jig manufacture and template work to name just a few.



Final pieces









Students spend two terms studying a variety of different material rocesses, theory work and exploring the Design Process building on KS 4 skills.



WELCOME

Students will begin their Design & Technology A Level journey with bridging work preparing them for their first year of post 16 study. This is in the form of investigative tasks, Product Analysing and sketch work.

Year