Landau Learner Curriculum Overview

Subject: GCSE Design and Technology **Director of Learning: GM** **Year: 10**

Curriculum organisation

Students are taught in mixed ability for the equivalent of six single lessons per week. Two of those sessions tend to be devoted to CADCAM. They follow the AQA 9-1 Design & Technology Specification

What topics will students be studying this year? Includes links to Specification, Curriculum Intent and Prior Related Learning*

Term 1:	Term 2:	Term 3:	Term 4:	Term 5:
Design Theory and Skills • The work of others • Design History • SolidWorks	**Design Theory and Skills** • Material Properties • Polymers	**Design Theory and Skills** • Sustainable design • Energy and the environment	**Design Theory and Skills** • Mechanisms • Quality Control • Production systems	**NEA Project Objective 1** • Identification of a problem • Research • Client / User research • Concept generation • Evaluation
Design Practise – Clothes Iron Design • Writing a design brief and Research techniques • Exploring and developing Ideas • Prototype development • Foam modelling • Evaluation techniques		**Design Practise – Clock Design** • Investigation, Developing and recording ideas • Use of CADCAM • Prototype creation • Tolerance • Orthographic Drawing		
Prior Learning: Y7,Y8 electronic product projects, Y9 radio project **AQA 9-1:** Designing and making principles **Intent:** we encourage students to develop an iterative, hands on approach to problem solving.	**Prior Learning:** Y8 electronic product **AQA 9-1:** Specialist technical principles **Intent:** we encourage students to develop an iterative, hands on approach to problem solving.	**Prior Learning:** Y7, Y8, Y9 CAD CAM, Y7, Y8 graphics **AQA 9-1:** Core technical principles **Intent:** develop students who are responsible citizens and better consumers: students who possess a good understanding of environmental, moral ethics and sustainability	**Prior Learning:** Y7, Y8, Y9 CAD CAM, Y7, Y8 graphics **AQA 9-1:** Specialist technical principles **Intent:** While making, students will be given exposure to a range of material areas	**Prior Learning:** Y7,Y8 electronic product, Y9 radio project, Y10 Clothes Iron Design **AQA 9-1:** Designing and making principles **Intent:** develop tests to help to evaluate against specific design criteria

Equipment needed for sessions:	**What can you do to support your child?**
• Design sketch book • A3 folder for storing larger work, technical drawings etc. • Textbook • Pencil case with basic equipment • Black fine line and felt tip pen	• Encourage your child to practise their drawing and sketching skills regularly. • Encourage your child to watch/listen to design based programmes on TV such as How its Made, Extreme Engineering, etc. • Encourage them to read news articles on the BBC News app about design and technology articles. • Encourage them to complete the homework tasks they are set by their Design tutor to a high standard, asking them to show you the finished work.
How will learning be assessed and progress measured?	**Extension and enrichment activities:**
• Marking of written is carried out on a regular basis in line with the College policy	