Design and Technology Curriculum Overview

Queen Elizabeth School

Year Group	Learning Cycle 1 – Autumn Term	Learning Cycle 2 – Spring Term	Learning Cycle 3 – Summer Term
Year 7 Students rotate each learning cycle to have an initial experience and gain understanding and knowledge of the subject areas within Design and Technology.	Resistant Materials – Designing to a Brief Manipulating materials safely	Food and Nutrition - Basic health, hygiene and safety. Basic food preparation and cooking skills.	Graphics/electronics- Drawing techniques Basic electronics circuits
Year 8 During year 8 students again rotate through the different Design and Technology subject areas to gain further understanding and knowledge	Resistant Materials – Designing to a Brief Manipulating materials safely Workshop machine skills	Food and Nutrition - Continuation of Basic health, hygiene and safety. Increasing repertoire of food preparation and cooking skills.	Graphics/electronics- Drawing techniques Understanding of cards boards and paper. Soldering and creating electronics circuits
Year 9 Students rotate through the Design and Technology subjects in year 9 building on prior learning before selecting an option at GCSE going into year 10.	Resistant Materials – Creating design briefs and Specifications Manipulating materials safely using a range a of hand tools and workshop machine skills	Food and Nutrition - Continuation of health, hygiene and safety practices. High risk foods. Increasing repertoire of food preparation and cooking skills.	Graphics – Colour theory Principles of design Computer Aided Design

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Year 10 Students have selected their option choice within Technology. Students gain a more in depth understanding in a theoretical and practical way as they move through the learning cycles	Engineering- Ferrous, non-ferrous metals and alloys Product Design - Materials – timber, plastics and textile Food – Fruit and Vegetables Dairy Products	Engineering- Computer Aided Design Product Design – Computer Aided Design Food – Cereals Proteins	Engineering- Plastics – Thermo plastics and thermosetting plastics Product Design- manufacturing processes Food – Fats and Sugars Alternative Proteins
Year 11 Student will be studying for GCSE's following the Eduqas exam board specification. Students in Engineering, Food and Nutrition and Product Design commence the Non Exam Assessment – (NEA) component of their GCSE which is worth 50% of their overall grade. They design and make products following analysis of tasks and conducting research.	Engineering- NEA – Context given, students independently commence coursework Product Design - Context given, students independently commence coursework Food – NEA 1	Engineering- NEA product manufacture testing and evaluation Product Design - NEA product manufacture testing and evaluation Food – NEA 2	Engineering- Theoretical study of design. Exam revision Product Design - heoretical study of design. Exam revision Food – Food commodities theory and revision.
Year 12	Product Design- Metals, ferrous and non-ferrous Alloys	Product Design- Timber Hardwoods Softwoods	Product Design – Plastics Thermo plastic Thermosetting plastic

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	Manipulating Metals. Casting Machining Extrusion Manufacturing processes	Manufactured Boards Joinery skills Manufacturing processes	Manipulating plastics.
Year 13 Product Design commence the Non Exam Assessment – (NEA) component of their GCSE which is worth 50% of their overall grade. They design and make products following analysis of tasks and conducting research.	Marketing Customer values Product Design- Analysis of NEA task and research. Planning manufacture	Product Design- Manufacture of product Testing and modification Evaluation	Product Design- Materials research Design theory.