



## KS4 Learning Overview

### Design & Technology

Exam Board: AQA

Year 10		
Term	Topics	Extra learning opportunities
Autumn 1	Pen holder - H&S, Timber + Polymers theory  Section A – Recap Common specialist principles	Watch 'How It's Made' TV series – how materials are processed  Visit Design Museum - materials
Autumn 2	Lamp design – Polymers & Electronics  Theory – Specialist Technical Principles  Maths + Science principles	Lighting design research.
Spring 1	<b>Mechanisms</b>  Motion & Movement, levers, linkages, gears, cams & machinery  Maths calculations relating to mechanical advantage & gear ratios  Practical – trebuchet, use of kits (k'nex & lego technic) and design & make of cam toy from card  Paper & card theory	Visit to the Science museum - mechanisms
Spring 2	Mini NEA sections C & D – Lighting & Seating design for hotel chain, creative design, development of design ideas & modelling	Watch Secret Hotels TV series
Summer 1	Design & make a hand-held container using at least 2 different materials  Making & joining theory, creative design, functionality, quality control. Materials & joining theory. CAD work for printing designs and laser cutting. Introduction of designers & their work	Research about different designers from the AQA list
Summer 2	Prepare for EOY exam  Start NEA – exam board set tasks	Revision sessions after school Watch How it's Made & How Things Work to aid revision of industrial processes & materials