

## Subject: DESIGN & TECHNOLOGY

YR	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Y7	<b>Drawing techniques -</b> One-point perspective <b>Investigation the work of others –</b> Art Deco Designers Features of Art Deco Generating ideas Specification check Developing ideas	<b>Product analysis</b> <b>6Rs</b> <b>Primary and secondary data</b> <b>Timber based materials</b> <b>Investigation the work of others –</b> Alessi Design Company Generating annotated ideas Mechanical devices	<b>Eat well guide</b> Food hygiene and safety Healthy diet Sensory analysis Food labelling Writing recipes			
Y8	<b>Model making</b> Properties of Boards Tessellation Marking out and assembly Finishing and joining materials Health and safety	<b>Material selection</b> Properties and applications of Smart materials, Papers and Boards <b>Iterative design -</b> Experimenting with pop up mechanism <b>Investigating the work of others –</b> product analysis Composition and layout	Healthy eating Fridge safety Fibre and Hydration Energy Sensory analysis Function of ingredients – pastry Recipe hunters Tin of beans challenge Bacteria and food storage			
Y9	<b>Drawing techniques -</b> One-point perspective Two-point perspective smart materials <b>Mobile phone stand</b> Iterative design through modelling Evaluating design ideas	<b>CAD – Adobe illustrator</b> Introduction to 2D vector drawings for laser cutting Iterative design through CAD modelling Evaluating	Ergonomics Anthropometrics Investigating the work of other designers Product comparison Product analysis Timbers	Specification writing Generating annotated ideas Introduction to basic 3D CAD modelling – Tinker CAD 6Rs Modern materials and technical textiles Polymers Commercial manufacturing	Developing ideas through collaboration Modelling Cutting list Adhesives Wood joints Joining materials Scales of production	Realising design ideas Evaluating Forces and stresses Ecological and social footprint The work of other design companies
Y10	<b>Drawing techniques</b> One and two-point perspective Isometric drawings Exploded views <b>Theory –</b> Industry and Enterprise Sustainability and the environment	<b>CAD</b> <b>2D vector drawings for laser cutting</b> <b>Laser cutting training</b> <b>Flat pack</b> <b>Industry and enterprise</b> <b>Theory –</b> People, culture and society Production techniques and systems Informing design decisions	<b>Mini NEA</b> Investigating design possibilities & Evaluating Client interview & Location visit Client profile Investigating the work of others Relevant issues <b>Theory –</b> Smart & Modern materials Composites & technical textiles	<b>Mini NEA</b> Design brief and specification Generating & Developing ideas Specification check Seeking client's opinion and developing ideas using client's opinions. <b>Theory –</b> Mechanical devices & Motion	<b>NEA</b> Investigating design possibilities Design brief and specification <b>Theory -</b> Papers and Boars Metals and Alloys Timber based materials Forces and stresses Quality control & tolerances	<b>NEA</b> <b>Generating design ideas</b> Sources of inspiration Perspective and isometric drawings Model making Annotating design ideas Specification check Client/Third party opinion



				Systems approach to designing Physical & working properties of materials		
<b>Y10-11</b>	<b>Developing Design ideas</b> Orthographic drawings Exploded drawings Manufacturing specification Cutting list CAD drawings	<b>Realising Design ideas- making principles</b> Marking out and wasting materials Laser Cutting 3D printing Thermoforming Mock Assembly Joining materials Applying surface treatment and finishes	<b>Testing and evaluating</b> Testing against specification Testing fitness for purpose and suitability for user Evaluating final prototype Commercial viability	<b>Exam Revision – Core technical principles</b>	<b>Exam Revision – Specialist technical principles</b>	<b>Exam Revision – Designing and making principles</b>
<b>Y11</b>	Investigating design possibilities Design brief and specification New and Emerging Technologies	Investigating design possibilities Design brief and specification Generating design ideas	Developing design ideas Modelling	Developing design ideas Realising design ideas  <b>Exam Revision – Core technical principles</b>	Realising design ideas Evaluating  <b>Exam Revision – Specialist technical principles</b>	<b>Exam Revision – Designing and making principles</b>