

Year 8 Intent: To further develop skills and knowledge that was embedded in Year 7. They will work towards being more creative and innovative, be introduced to more technical knowledge and have the opportunity to work with more mediums, materials and complex techniques. Students may then continue to further development at GCSE level, after experiencing a range of different disciplines.

Learning cycle	Food	Textiles	Graphics: Eco-Dwelling	USB Lamp	Speaker
Key Concepts and Themes	<ul style="list-style-type: none"> Nutrients- macro and micro Alternative Proteins- the technological developments, range and advantages of these. Energy Balance- the balance between energy consumed and expended and the consequences of poor energy balance Different Dietary Needs Food Science 	<ul style="list-style-type: none"> Development of Textiles practical knowledge, with more focus on using the sewing machines to manufacture their product. Introduction to the use of pattern pieces, and how these should be designed. Working with more complex embellishments such as embroidery and applique 	<ul style="list-style-type: none"> Architects and Architectural Design – Baroque, Victorian 2D and 3D drawing, including more complex oblique and isometric drawing, leading into perspective and orthographic drawing Developing a pitch, similar to industry, which would be used by the client to help understand the concept. 	<ul style="list-style-type: none"> Mechanisms and Types of Motion – Linear and Rotary Design Process; from design context, to design brief, to design specification Working with Tools and Equipment to create a complex end product, such as the pillar drill, belt sander and coping saw. Hardwoods and softwoods and their finishing processes. Levers and Linkages 	<ul style="list-style-type: none"> 3D drawing techniques Categories of timbers – softwoods, hardwood, manufactured boards Properties and characteristics of timbers and boards Working with timbers and boards Assembly Problem solving Evaluating against the specification
Vocabulary	<ul style="list-style-type: none"> Macronutrients and Micronutrients Alternative protein Calories Dietary requirements Coeliac disease Gluten and Lactose intolerance Allergies 	<ul style="list-style-type: none"> Scales of Production Printing processes Pattern pieces Sustainability Embroidery Embellishments Applique 	<ul style="list-style-type: none"> Sustainable design Renewable energy Finite and Non-finite resources Orthographic drawing Prototyping 	<ul style="list-style-type: none"> Linkages Levers Mechanisms Oscillating Reciprocating Hardwood Softwood Aesthetics Specification Render 	<ul style="list-style-type: none"> Oblique drawing Isometric projection 2 point perspective Construction lines Parallel Vertical Horizontal
Skill development	<ul style="list-style-type: none"> To successfully use a range of different tools and more complex techniques to manufacture a more sophisticated end product To be able to analyse a specification and use this to aid in the development of ideas To be able to reflect upon and summarise the effectiveness of a product To respond to feedback from peers and teachers in order to further make progress To develop independent design skills by using a plan of making or systems based approach 				

Students will complete three of the five projects above over the course of the year, with each project lasting one term in length.