

YEAR 6	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Key Question	Evolution - is change necessary?_		Is duty more important than belief?		How do we cope with adversity?	
Areas of Study:	Construction/Mechanisms		Food Technology		Textiles	
KNOWLEDGE:						
<u>Designing</u>	<ul style="list-style-type: none"> • When researching, be competent in discriminating as to what would be and would not be helpful for their intended product • Use market research of existing products to inform their design • Follow and refine original plans, justifying it in a convincing way • Draw detailed 3D designs using exploded diagrams or cross sectional drawing where appropriate to display finer details • Show that culture and society is considered in plans and design specification • Show thought has been given to materials relating to recycling and sustainability. • Know how much products cost and make choices accordingly 					
<u>Making</u>	<ul style="list-style-type: none"> • Confidently select appropriate tools, materials, components and techniques and use them efficiently • Know how to use any tool correctly and safely • Know what each tool is used for • Explain why a specific tool is best for a specific action • Make modifications go along and explain their reasons • Construct products using permanent joining techniques. • Use mechanical systems such as pulleys and gears competently to create movement in their products • Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products • Use finishing techniques to strengthen and improve the appearance of their products using a range of equipment including ICT • Pin, sew and stitch materials together to create a product 					
<u>Evaluating</u>	<ul style="list-style-type: none"> • Test and evaluate designed products with specified audience where possible • Explain how products should be stored and give reasons • Evaluate product against clear criteria 					

	<ul style="list-style-type: none"> • Evaluate their work both during and at the end of the assignment. • Record their evaluations using drawing with labels
<u>Technical Knowledge</u>	<ul style="list-style-type: none"> • Know which IT product would further enhance a specific product • Use knowledge to improve a made product by strengthening, stiffening or reinforcing • Use electrical systems correctly and accurately to enhance a given product • Know when a product they have made is improved by either the use of pulleys, levers or gears
<u>Food Technology</u>	<ul style="list-style-type: none"> • Explain how food ingredients should be stored and give reasons • Work within a budget to create a meal • Understand the difference between a savoury and sweet dish • Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, including where appropriate, the use of a heat source. • Know different food and drink contain different substances - nutrients, water and fibre - that are needed for health
<u>KEY VOCABULARY</u>	Ingredients, yeast, dough, wholemeal, unleavened, baking soda, spice, herbs, carbohydrate, sugar, fat, protein, vitamins, nutrients, gluten, allergy, intolerance, savoury, seasonality, pour, mix, kneed, whisk, beat, combine, fold, rubbing in
SKILLS:	
Developing, planning and communicating Ideas	<ul style="list-style-type: none"> • Can they use a range of information to inform their design? • Can they use market research to inform plans? • Can they work within constraints? • Can they justify their plan to someone else? • Can they consider culture and society in their design? • Have they considered the use of the product when selecting materials? • Have they thought about how their product can be marketed through packaging and advertising?

Working with tools, equipment, materials and components to make quality products	<ul style="list-style-type: none"> • Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience? • Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters?
Evaluating processes and products	<ul style="list-style-type: none"> • How well do they test and evaluate their final product? • Is it fit for purpose? • What would improve it? • Would different resources have improved their product? • Would they need more or different information to make it even better? • Does their product meet all design criteria?
Areas of Study: Textiles	<ul style="list-style-type: none"> • Can they consider the audience when choosing textiles? • Can they make up a prototype first? • Can they use a range of joining techniques?
KEY VOCABULARY	Applique, annotate, evaluate, innovation, functionality, renewable, authentic, chain stitch
Electrical and Mechanical Components	<ul style="list-style-type: none"> • Can they use different kinds of circuits in their product to improve it? • Can they incorporate a switch into their product? • Can they refine their product after testing it?
KEY VOCABULARY	Transmit, annotated drawings, exploded diagrams, functionality
Electrical Systems: KEY VOCABULARY	Light dependent resistor, interface control, micro-switch, latching switch
Construction	<ul style="list-style-type: none"> • Are their measurements accurate enough to ensure precision? • Can they demonstrate that their product is strong and fit for purpose? • Are they motivated to refine and further improve their product?
KEY VOCABULARY	Reinforce, triangulation, stability, temporary, permanent, prototype, innovation, functional, design brief

GREATER DEPTH

- Can they develop and follow a well thought out design brief and have accurately researched the end user's needs and preferences throughout the process?
- Can they evaluate critically other products and use this information to make purposeful amendments their own?
- Do they use a high quality and variety of presentation and precision in their design and make?
- Can think deeply and critically about other products and identify the strengths and weaknesses of the designs?