

YEAR 3	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Key Question	What can we learn from the world beneath our feet?	What would life be like in a world without colour?	What are the mysteries of Ancient Egypt?		Is being strong always a good thing?	
Areas of Study:	Mechanisms/Construction		Textiles		Food Technology	

KNOWLEDGE:

Designing

- Research independently and generate some ideas before thinking about resources.
- Consider the purpose and audience for their product
- Order the main stages of making a product, continually referring to purpose and establish criteria for a successful product.
- Prove that a design meets the specification
- Design a product and make sure that it meets the design criteria including looking attractive (if needed)
- Draw annotated designs with labels that detail their material choices and suitability of the given materials
- Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground breaking products.
- Start to understand whether their products can be recycled or reused.
- When planning, explain their choices of materials and components, including function.
- develop their own ideas through drawings, making templates or mock ups of their initial ideas using ICT (if needed).

Making

- Follow a step-by-step plan, choosing the right equipment and materials
- Select the most appropriate tools and techniques for a given task
- Work accurately to measure, mark out, make cuts, score, make holes and assemble components with more accuracy.
- Start to work safely and accurately with a range of simple tools.
- Choose finishing techniques to improve the appearance of their products using a range of equipment including ICT
- Start to understand that mechanical systems (such as levers and linkages) create movement.
- Start to think about their ideas as they make their product and be willing to change things if they help them to improve their work.
- Start to measure, tape or pin, cut and join fabric with some accuracy.

<p><u>Evaluating</u></p>	<ul style="list-style-type: none"> • Explain how to improve a finished model • Know why a model has or has not been successful • Evaluate their product against their original design criteria (e.g. how well it meets its intended purpose). • Begin to disassemble and evaluate familiar products and consider the views of others to improve them. • Evaluate the key designs of individuals in DT has helped shaped the world.
<p><u>Technical Knowledge</u></p>	<ul style="list-style-type: none"> • Know how to strengthen a product by stiffening a given part or reinforce a part of the structure • Use a simple IT program within the design • Create a product that incorporates a pulley mechanism.
<p><u>Food Technology</u></p>	<ul style="list-style-type: none"> • Describe how food ingredients come together • Weigh out ingredients and follow a given recipe to create a dish • Know when food is ready for harvesting • Demonstrate hygienic food preparation • Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of heat source. • Begin to understand how to use a range of techniques, such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. • Begin to know that to be active and healthy, food and drink are needed to provide energy for the body
<p><u>KEY VOCABULARY</u></p>	<p>Texture, taste, appearance, preference, greasy, moist, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested</p>

SKILLS:	
Developing, planning and communicating Ideas	<ul style="list-style-type: none"> • Can they plan their design using accurate diagrams and information? • Can they plan the equipment/tools needed and give reasons why? • Can they start to order the main stages of making their product? • Can they identify a design criterion and establish a purpose/audience for their product? • How realistic are their plans? E.g., tools, equipment, materials, components.
Working with tools, equipment, materials and components to make quality products	<ul style="list-style-type: none"> • Can they use equipment and tool accurately and safely? • Can they select the most appropriate materials, tools and techniques to use? • Can they manipulate materials using a range of tools and equipment? • Can they measure, cut and assemble with increasing accuracy?
Evaluating processes and products	<ul style="list-style-type: none"> • Can they start to think about their ideas as they make progress and be willing to make changes if this helps them to improve their work? • Can they assess how well their product works in relation to the purpose? • Can they explain how they could change their design to make it better?
Areas of Study: Textiles	<ul style="list-style-type: none"> • Can they join textiles of different types in a range of ways? • Can they choose textiles both for their appearance and qualities? • Can they begin to use a range of simple stitches? • Can they use fabric to build an image? • Can they add details to a piece of work? • Can they add texture to a piece of work?
KEY VOCABULARY	Fastening, compartment, zip, finishing technique, function, prototype, back stitch, felted, woven, knitted, bonded
Mechanisms	<ul style="list-style-type: none"> • Can they make a product which uses mechanical components? • Can they use a range of components? E.g., levers, linkages and pneumatic systems
KEY VOCABULARY	Loose pivot, fixed pivot, system, input, process

Construction	<ul style="list-style-type: none"> • Can they join materials effectively to build a product? • Can they use a range of techniques to shape and mould materials? • Can they use finishing techniques? E.g., sanding, varnishing, glazing etc
KEY VOCABULARY	Shell, structure, net, marking out, material, joining, three dimensional, stiff
<u>GREATER DEPTH</u>	<ul style="list-style-type: none"> • Can children demonstrate a creative response to the problem? • Can children stick rigidly to the brief and consider the end user's needs and preferences throughout the process • Can the child think deeply and critically about other products and also about their own product? • Can the child amend their product as they go to improve its outcome?

Electrical Systems:	
KEY VOCABULARY	User, fault, toggle switch, insulator, conductor, battery holder, crocodile clip