Galliard Primary School DT Year 6

	Term 1	Term 2	Term 3
Unit of work	Textiles *Designer bags*	Electical systems *Monitoring and control - crumble*	Food *Carribbean fruit cocktails*
Link to Programme of study	**<u>Design</u>** use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **<u>Make</u>** select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities **<u>Evaluate</u>** investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world **<u>Technical knowledge</u>** apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.		
Composite knowledge	How can we combine different fabric shapes? What impact have different designers had on fabrics and products? How can we strengthen/stiffen a product?	Why do we use computer control programs to operate products? What are the advantages of using computer control?	What variety of fruits do we have and where do they come from? How do they influence food and drink from that country? Why do we need a healthy diet and how does fruit contribute to this? What combinations of fruit make a drink with pleasing results? Which safety and hygiene rules must be followed when carrying out practical tasks in food technology?
Intentional knowledge they need to understand (Component knowledge)	Demonstrate a variety of stitches used to join fabrics Observe and describe the impact different designers have had on fabrics and products	Explain why we use computer control programs to operate products Describe some of the advantages of using computer control	Describe what culture and seasonality are Identify different techniques we can use to make bread/biscuits

	Demonstrate different techniques we can use to strengthen/stiffen a product		Recognise the different nutritional values in food products and understand what is healthy
Vocabulary	Durable, joining, fasten, material, seam allowance, stitches, card wallet		ingredients, fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonalityutensils, combine, fold, stir, pour, mix, whisk, beat, roll out, shape, sprinkle, crumble
Links to prior knowledge	Experience of stitching, joining and finishing techniquesin textiles. Experience of making and using textiles pattern pieces. Experience of simple computer-aided designapplications.	Initial experience of using computer control software and an interface box,a standalone boxor microcontroller, e.g. Crumble. Some experience of writing and modifying a program to make a light turnonor flash on and off. Understanding of the essential characteristics of a series circuit and experience of creating a battery-powered, functional, electrical product.	Have knowledge and understanding about food hygiene, nutrition, healthy eating and a varied diet. Be able to use appropriate equipment and utensils, and apply a range of techniques for measuring out, preparing and combining ingredients.
Cross-curricular links	Computing–children express themselves and develop ideas using a range of information and communication technology resources. Art and design–use and apply drawing skillsincluding art programmes onthecomputer. Spoken language–consider and evaluate others' viewpoints.Givea well-structured oral evaluation to include relevant technical vocabulary.	Science–apply knowledge and understanding of circuits, switches, conductors and insulator Computing–design, write and debug programs that accomplish specific goals, including controlling physical systems. Use sequence, selection, and repetition in programs. Work with variables and various forms of input and output Mathematics–apply understanding and skill to carry out accurate measuring using standard units i.e. cm/mm.	Mathematics –measurement of mass kg/g; understand and use approximate equivalence of metric and imperial units. Art and design–using and developing drawing skills. Writing –purpose of writing e.g. for planning and evaluation. Mathematics –measurement of mass kg/g. Science –recognise the impact of diet on the way the body develops
Oracy & Outdoor Learning Links	How can we combine different fabric shapes? What impact have different designers had on fabrics and products? How can we strengthen/stiffen a product?		Spoken language –articulate and justify answers and opinions.Listenand respond to adults and peers.