Galliard Primary School Year 4 DT

	Term 1	Term 2	Term 3
Unit of work	Food – Healthy and varied diet *Super Salads*	Mechanical Systems – lever and linkages *Pop up story*	Simple programming and control *Developing handmade switches*
Link to Programme of study	**Design** 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 **Make** 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 **Evaluate** 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 **Technical knowledge** 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	What are culture and seasonality? What different techniques can we use? How can we understand nutritional value of a product? What functions do different untensils have?	Which part of the card is the linkage/lever? Which are the fixed pivots and which are the loose pivots?	What is a program? How can we create a simple program? How can we create a program with a control aspect?
Intentional knowledge they need to understand (Component knowledge)	Demonstrate an understanding of the different equipment neeeed to prepare food Demonstrate and recognise hygienic methods of food preparation	Identify successfully levers and linkages in systems Identify fixed and loose pivots in a mechanical system	Explain and describe what a program is and observe programs in the school environment. Oberve and construct a simple program.

	Describe the importance of following instructions when cooking		
Vocabulary	texture, taste, appearance, smell, cook, savoury, hygienic, crisp, seasonal, fresh, edible, harvested.	mechanism, lever, linkage, input, process, output,	series circuit, fault, connection, wire, insulator, conductor, program, system,
Links to prior knowledge	Know some ways to prepare ingredients safely and hygienically. Have some basic knowledge and understanding about healthy eating and The eatwell plate. Have used some equipment and utensils and prepared and combined ingredients to make a product.	Explored and used mechanisms such as flaps, sliders and levers. Gained experience of basic cutting, joining and finishing techniques with paper and card.	Constructed a simple series electrical circuit, using bulbs, batteries, switches and buzzers. • Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue
Cross-curricular links	Mathematics – mass kg/g. Art and Design – using and developing drawing skills. Writing – new vocabulary. Use non-fiction texts such as description, explanation and instructions e.g. recipes. Organise their work using e.g. headings, subheadings. Spoken language – consider and evaluate different viewpoints. Use discussion to develop understanding through exploring ideas.	Mathematics – use the vocabulary of position, direction and movement. Use a ruler to measure to the nearest cm, half cm or mm. Art and design – use colour, pattern, line, shape. Computing – digital graphics and text could be incorporated into final products as the background or moving parts	Science – know how to construct simple series circuits and have a basic understanding of conductors, insulators and open and closed switches. • Computing – design, write and debug programs that accomplish specific goals, including controlling physical systems. • Art and design – using and developing drawing skills.
Oracy & Outdoor Learning Links	Spoken language–developing relevant vocabulary e.g. sensory descriptors. Ask relevant questions to extend their knowledge.	Spoken language – ask relevant questions to extend knowledge and understanding. Build their technical vocabulary.	What is a program? How can we create a simple program? How can we create a program with a control aspect?