Mersey Park Primary School Design and Technology Long Term Overview – Year 4

	Target Tracker Assessment Focus	Weaving Knowledge, Skills and Understanding
Cooking and Nutrition: Soup		
	• Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active • Understand seasonality and the advantages of eating seasonal and locally produced food • Read and follow recipes which involve several processes, skills and techniques	During KS2 pupils should be taught to: • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Breadth of study: • Do they know what to do to be hygienic and safe? • Have they thought what they can do to present their product in an interesting way?
Processes: Rabbit toy, Light box		
Developing planning and communicating ideas	• Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience • Create designs using exploded diagrams	During KS2 pupils should be taught to: • 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 Breadth of study: • Can they come up with at least one idea about how to create their product? • Do they take account of the ideas of others when designing? • Are they conscience of the need to produce something that will be liked by others? • Can they produce a plan and explain it to others?
Working with tools, equipment, materials and components to make quality products Textiles	• Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks • Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them	During KS2 pupils should be taught to: • select from and use a wider range of tools and equipment to perform practical tasks, such as 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 Breadth of study: • Can they tell if their finished product is going to be good quality? • Can they show a good level of expertise when using a range of tools and equipment? • Can they explain how to join things in a different way? • Do they think what the user would want when choosing textiles?

Stiff and flexible sheet materials Mouldable materials		• Can they devise a template? • Can they use a range of advanced techniques to shape and mould?
Evaluating processes and products	• Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user	During KS2 pupils should be taught to: • 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 Breadth of study: • Have they thought of how they will check if their design is successful? • Do they continue to work at their product even though their original idea might not have worked? • Can they begin to explain how they can improve their original design? • Can they evaluate their product, thinking of both appearance and the way it works? • Do they take time to consider how they could have made their idea better? • Can they suggest some improvements and say what was good and not so good about their original design?
Electrical and mechanical components	• Understand and use electrical systems in products	During KS2 pupils should be taught to: • understand and use mechanical systems in their products, (for example as 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 programme, monitor and control their products. Breadth of study: • Can they add things to their circuits? • How have they altered their product after checking it? • Are they confident about trying out new and different ideas?
Construction	• Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas	During KS2 pupils should be taught to: • apply their understanding of how to strengthen, stiffen and reinforce more complex structures Breadth of study: • Can they measure carefully so as to make sure they have not made mistakes? • How have they attempted to make their product strong? • Do they use finishing techniques, showing an awareness of audience?