**Rock Ferry Primary School Design and Technology Long Term Overview – Year 3**

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|  | **Target Tracker Assessment Focus** | **Weaving Knowledge, Skills and Understanding** |
| **Cooking and Nutrition: Healthy Spanish meal** |
|  | * Talk about the different food groups and name food from each group
* Understand that food has to be grown, farmed or caught in Europe and the wider world
* Use a wider variety of ingredients and techniques to prepare and combine ingredients safely
 | 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:* Can they choose the right ingredients for a product?
* Can they use equipment safely?
* Can they make sure that their product looks attractive?
* Can they describe how their combined ingredients come together?
* Can they set out to grow plants such as cress and herbs from seed with the intention of using them for their food product?
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| **Processes: Christmas cards with levers, Stone Age puppets, vehicle with moving parts to transport materials to the pyramids** |
| **Developing, planning and communicating ideas** | * Use knowledge of existing products to design his/her own functional products
* Create designs using annotated sketches, cross-sectional diagrams and simple computer programs
 | 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 show that their design meets a range of requirements?
* Can they put together a step by step plan which shows the order and also what equipment and tools they need?
* Can they describe their design using an accurately labelled sketch and words?
* How realistic is their plan?
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| **Working with tools, equipment, materials and components to make quality products****Textiles****Stiff and flexible sheet materials****Mouldable materials** | * Safely measure, mark out, cut, assemble and join with some accuracy
* Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them
 | During KS2 pupils should be taught to:* Select from and use a range of tools and equipment to perform practical tasks, (for example, cutting, shaping, joining and finishing, accurately)
* Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Breadth of study:* Do they select the most appropriate tools and techniques to use for a given task?
* Can they use equipment and tools accurately?
* Can they join textiles of different types in different ways?
* Can they choose textiles both for their appearance and also qualities?
* Do they select and use the most appropriate materials?
* Can they work accurately to make cuts and holes?
* Can they use a range of techniques to mould and shape?
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|  | **Target Tracker Assessment Focus** | **Weaving Knowledge, Skills and Understanding** |
| **Evaluating processes and products** | * Investigate and analyse existing products and those he/she has made, considering a wide range of factors
 | 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:* Can they explain what they changed which made their design even better?
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| **Electrical** **and****mechanical components** | * Understand how to use axels and wheels to create movement
 | During KS2 pupils should be taught to:* Understand and use mechanical systems in their products (eg as gears, pulleys, cams, levers and linkages)

Breadth of study:* Can they make a product which moves using axels and wheels?
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| **Construction** | * Strengthen frames using diagonal struts
 | 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 join materials?
* Do they use finishing techniques?
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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Cookery** | **Mechanisms** | **Textiles** |  | **Construction****Mechanisms** |  |
| Spanish Food | Christmas cards with levers  | Stone Age Puppets |  | Cart to transport  |  |