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

|  |  |  |
| --- | --- | --- |
|  | **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? |
| **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? |
| **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? |

|  |  |  |
| --- | --- | --- |
|  | **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? |
| **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? |
| **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? |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 |  |