**Rock Ferry Primary School Design and Technology Long Term Overview – Year 6**

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|  | **Target Tracker Assessment Focus** | | | **Weaving Knowledge, Skills and Understanding** | | | | |
| **Cooking and Nutrition: Vegetarian meals** | | | | | | | | |
|  | * Confidently plan a series of healthy meals based on the principles of a healthy and varied diet * Use information on food labels to inform choices * Research, plan and prepare and cook a savoury dish applying his/her knowledge of ingredients and his/her technical skill | | | 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 explain how their product should be stored with reasons? * Can they set out to grow their own products with a view to making a salad, taking account of time required to grow different foods? | | | | |
| **Processes:** | | | | | | | | |
| **Developing, planning and communicating ideas** | * Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products * Generate, develop, model and communicate his/her sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | | | 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 use a range of information to inform their design? * Can they use market research to inform plans? * Can they justify design in relation to the audience? * Can they work within constraints? * Can they follow and refine their plan if necessary? * Can they justify their plan to someone else? * Do they consider culture and society in their designs? * Have they thought about how their product could be sold? | | | | |
| **Working with tools, equipment, materials and components to make quality products**  **Textiles**  **Stiff and flexible sheet materials**  **Mouldable materials** | * Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities * Use technical knowledge and accurate skills to problems solve during the making process | | | 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:   * Can they use tools and materials precisely? * Can they justify why they selected specific materials? * Can they justify why the chosen material was the best for the task? * Did they consider the use of the product when selecting materials? | | | | |
|  | **Target Tracker Assessment Focus** | | | | **Weaving Knowledge, Skills and Understanding** | | | |
| **Evaluating processes and products** | * Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she has made | | | | 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:   * Do they change the way they are working if needed? * How well do they test and evaluate their final product? * Have they given considered thought about what would improve the product even more? * Is it fit for purpose? * Would different resources have improved their product? * Would they need more or different information to make it even better? * Does their product meet all design criteria? | | | |
| **Electrical**  **and**  **mechanical components** | * Apply his/her understanding of computing to program, monitor and control his/her product | | | | During KS2 pupils should be taught to:   * Understand and use mechanical systems in their products (eg as gears, pulleys, cams, levers and linkages) * Understand and use electrical systems in their products (eg 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 use different kinds of circuit in their product? * Can they think of ways in which adding a circuit would improve their product? | | | |
| **Construction** | * Use a wide range of methods to strengthen, stiffen and reinforce complex structures and use them accurately and appropriately | | | | During KS2 pupils should be taught to:   * Apply their understanding of how to strengthen, stiffen and reinforce more complex structures   Breadth of study:   * How have they ensured that their work is precise and accurate? * Can they hide joints so as to improve the look of their product? | | | |
| **Autumn 1** | | **Autumn 2** | **Spring 1** | | | **Spring 2** | **Summer 1** | **Summer 2** | |
| **Food** | |  |  | | |  | **Construction**  **Mechanisms** | **Textiles** | |
| Vegetarian meal | |  |  | | |  | Design and build a bridge | Make a sampler of RFPS memories | |