**St Minver 2014 National Curriculum long term overview**

**Subject: DT**

|  |  |
| --- | --- |
| **Aims** | The national curriculum for design and technology aims to ensure that all pupils:   develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world   build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users   critique, evaluate and test their ideas and products and the work of others   understand and apply the principles of nutrition and learn how to cook. |
| **Subject Content** | **Key stage 1**  Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].  When designing and making, pupils should be taught to:  **Design**   design purposeful, functional, appealing products for themselves and other users based on design criteria   generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology  **Make**   select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]   select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics  **Evaluate**   explore and evaluate a range of existing products   evaluate their ideas and products against design criteria  **Technical knowledge**   build structures, exploring how they can be made stronger, stiffer and more stable   explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.  **Key stage 2**  Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].  When designing and making, pupils should be taught to:  D**esign**   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.  **Cooking and nutrition**  As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.  Pupils should be taught to:  **Key stage 1**   use the basic principles of a healthy and varied diet to prepare dishes   understand where food comes from.  **Key stage 2**   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. |

|  |  |
| --- | --- |
| **Year** | **Topics covered/progression** |
| **1** | **Food/Nutrition Fruit Salads**  **Resistant Materials – Pop Up cards**  **Resistant Materials – Junk Modelling – Houses and Homes** |
| **2** | **Food/Nutrition – Salad with each food group**  **Resistant Materials – ‘Stop’ sign for Island of Struay**  **Textiles – fabric flowers** |
| **3** | **Food/Nutrition -Bread**  **Food/Nutrition - Healthy Sandwich Snacks**  **Resistant Materials – Photo frames**  **Textiles/Resistant Materials – Packaging** |
| **4** | **Food/Nutrition – Bone builder drinks**  **Food/ Nutrition - Biscuits**  **Resistant Materials – Jewellery (Egyptian)**  **Textiles – Money Containers** |
| **5** | **Food/Nutrition – Pizzas**  **Food/ Nutrition – French Cuisine**  **Resistant Materials – Moon Buggies**  **Textiles – PE Bags** |
| **6** | **Food/Nutrition – Christmas Cakes**  **Food/ Nutrition – Healthy Salads**  **Resistant Materials – Victorian carriages**  **Textiles – Leavers’ play T shirts** |