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

**Subject: DT**

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| **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. |

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| **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** |