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| **A progression of the key Design and Technology skills and understanding, Purpose of Study and Aims of the National Curriculum 2014** | **Technical knowledge**  develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world   | **Designing and making** 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 design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values.  Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. | **Evaluation** critique, evaluate and test their ideas and products and the work of othersThrough the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. | **Nutrition and cookery**  Understand and apply the principles of nutrition and learn how to cook. |
| **Expected by the end of lower KS2 Year 4** | I can choose appropriate tools, equipment, components and techniques to make functional products.  I can apply my technical knowledge and understanding of the nature of materials to cut, shape and join them with some accuracy.  I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures. | I can generate ideas and recognise my designs could meet a range of different needs and users.  I can think ahead about the order of my work and make a realistic plan for achieving my aims.  I produce step by step plans to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and patterns and select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  I can 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 | I can reflect on the design and make process and identify some improvements to my products.  I understand how key events and individuals in design and technology have helped shape the world | I am beginning to understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using simple cooking techniques  I understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |
| **Expected by the end of KS2  Year 6** | I understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]  I understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]  I can apply my understanding of computing to program, monitor and control their products. | I 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  I can generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  I can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  I can 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 | I can 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  I understand how key events and individuals in design and technology have helped shape the world.  I can identify what is working well and what could be improved to overcome technical problems.  When evaluating I pay attention to the quality of finish. | I can understand and apply the principles of a healthy and varied diet  I can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques  I understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |
| **Exceeding the expected knowledge, skills and concepts by the end of KS2** | All of the elements above consistently and independently. | All of the elements above consistently and independently. | All of the elements above consistently and independently. | All of the elements above consistently and independently. |
| **NC**  **Aims and Attainment targets** | Aims   * 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.   Attainment targets   * By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. | | | |



**Design and Technology**

**Learning Journey (Intent)**