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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.
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**Design and Technology**

**Learning Journey (Intent)**