

## National Curriculum Requirements of DT at 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, such as the home, school, leisure, culture, enterprise, industry and the wider environment.

When designing and making, pupils should be taught to:

### **Design**

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 sketched, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

### **Make**

select from and use a wide range of tools and equipment to perform practical tasks, such as 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, such as gears, pulleys, cams, levers and linkages  
understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors  
apply their understanding of computing to programme, monitor and control their products

## **National Curriculum Requirements of Cooking and Nutrition at Key Stage 2**

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:

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.

**Knowledge, Skills and Understanding breakdown for Design and Technology**

**Year 6**

<b>Developing, planning and communicating ideas</b>	<b>Working with tools, equipment, materials and components to make quality products</b>	<b>Evaluating processes and products</b>
<p>Can they use a range of information to inform their design?                      Can they use market research to inform plans?                      Can they work with 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?</p>	<p>Can they use tools and materials precisely?                      Do they change the way they are working if needed?</p>	<p>How well do they test and evaluate their final product?                      Is it fit for purpose?                      What would improve it?                      Would different resources have improved their product?                      Would they need more or different information to make it even better?</p>

**Breadth of study**

<b>Cooking and nutrition</b>	<b>Textiles</b>	<b>Electrical and mechanical components</b>	<b>Stiff and flexible sheet materials</b>	<b>Mouldable materials</b>
<p>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 into account of time required to grow different foods?</p>	<p>Have they thought about how their product could be sold?                      Have they given considered thought about what would improve their product even more?</p>	<p>Can they use different kinds of circuit in their product?                      Can they think of ways in which adding a circuit would improve their product?</p>	<p>Can they justify why they selected specific materials?                      Can they work within a budget?                      How have they ensured that their work is precise and accurate?                      Can they hide joints so as to improve the look of their product?</p>	<p>Did they consider the use of the product when selecting materials?                      Does their product meet all design criteria?</p>