

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 4

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
<p>Can they come up with at least one idea about how to create their product?</p> <p>Do they take account of the ideas of others when designing?</p> <p>Can they produce a plan and explain it to others?</p> <p>Can they suggest some improvements and say what was good and not so good and not so good about their original design?</p>	<p>Can they tell if their finished product is going to be good quality?</p> <p>Are they conscience of the need to produce something that will be liked by others?</p> <p>Can they show a good level of expertise when using a range of tools and equipment?</p>	<p>Have they thought of how they will check if their design is successful?</p> <p>Can they begin to explain how they can improve their original design?</p> <p>Can they evaluate their product, thinking of both appearance and the way it works?</p>

Breadth of study

Cooking and nutrition	Textiles	Electrical and mechanical components	Stiff and flexible sheet materials	Mouldable materials
<p>Do they know what to do to be hygienic and safe?</p> <p>Have they thought what they can do to present their product in an interesting way?</p>	<p>Do they think what the user would want when choosing textiles?</p> <p>Have they thought about how to make their product strong?</p> <p>Can they devise a template?</p> <p>Can they explain how to join things in a different way?</p>	<p>Can they add things to their circuits?</p> <p>How have they altered their product after checking it?</p> <p>Are they confident about trying out new and different ideas?</p>	<p>Can they measure carefully so as to make sure they have not made mistakes?</p> <p>How have they attempted to make their product strong?</p>	<p>Do they take time to consider how they could have made their idea better?</p> <p>Do they work at their product even though their original idea might not have worked?</p>

