

National Curriculum Requirements of Design and Technology at Key Stage 2

Pupils should safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Pupils should use what they have learnt about media and materials in original ways, thinking about uses and purposes. They should represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories. They should handle equipment and tools effectively, including pencils for writing.

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 sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- **Make:** Pupils should be taught to: 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:** Pupils should be taught to: 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:** Pupils should be taught to: 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:** 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.