

Standards Design and Technology Key Stage 3

Design & Technology Importance Statement

In design & technology pupils combine practical & technological skills with creative thinking to design & make products & systems that meet human needs. They learn to use current technologies & consider the impact of future technological developments. They learn to think creatively & intervene to improve the quality of life, solving problems as individuals & members of a team. Working in stimulating contexts that provide a range of opportunities & draw on the local ethos, community & wider world, pupils identify needs and opportunities. They respond with ideas, products & systems, challenging expectations where appropriate. They combine practical & intellectual skills with an understanding of aesthetic, technical, cultural, health, social, emotional, economic, industrial & environmental issues. As they do so, they evaluate present and past design and technology, and its uses and effects. Through design and technology pupils develop confidence in using practical skills and become discriminating users of products. They apply their creative thinking and learn to innovate.

● Indicates standard is focused on ○ Indicates standard is covered in a general way

Key Stage 3 D&T Programme of Study Statement Key Concepts		Inquiry Video	Tutorial	Heat	Motion	Sound	Light	Project
1.1 Designing and making								
1.	Understanding that designing and making has aesthetic, environmental, technical, economic, ethical and social dimensions and impacts on the world.							●
2.	Applying knowledge of materials and production processes to design products and produce practical solutions that are relevant and fit for purpose.							●
1.2 Creativity								
1.	Making links between principles of good design, existing solutions and technological knowledge to develop innovative products and processes.							●
3.	Exploring and experimenting with ideas, materials, technologies and techniques.	●	●	●	●	●	●	●
1.4 Critical evaluation								
2.	Evaluating the needs of users and the context in which products are used to inform designing and making.							●
3.	Exploring the impact of ideas, design decisions and technological advances and how these provide opportunities for new design solutions.							●

Key Stage 3 D&T Programme of Study Statement Key Processes		Inquiry Video	Tutorial	Heat	Motion	Sound	Light	Project
3.	Apply their knowledge and understanding of a range of materials, ingredients and technologies to design and make their products			●	●	●	●	●
5.	Plan and organise activities and then shape, form, mix, assemble and finish materials, components or ingredients							●
7.	Solve technical problems			●	●	●	●	●
8.	Reflect critically when evaluating and modifying their ideas and proposals to improve products throughout their development and manufacture.			●	●	●	●	●

Key Stage 3 D&T Programme of Study Statement Range and Content		Inquiry Video	Tutorial	Heat	Motion	Sound	Light	Project
The study of making in resistant materials and textiles should include:								
13.	How to prepare and assemble components to achieve functional results.			●	●	●	●	●
The study of making in systems and control should include:								
14.	The practical application of systems and control in design proposals			●	●	●	●	●

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15.	Electrical, electronic, mechanical, microprocessor and computer control systems and how to use them effectively			●	●	●	●	●
16.	Using systems and control to assemble subsystems into more complex systems			●	●	●	●	●
17.	Feedback and how a variety of inputs can give rise to a variety of outputs			●	●	●	●	●

Key Stage 3 D&T Programme of Study Statement Curriculum Opportunities		Inquiry Video	Tutorial	Heat	Motion	Sound	Light	Project
In ways appropriate to the product area, the curriculum should provide opportunities for pupils to:								
2.	Undertake focused tasks that develop knowledge, skills and understanding in relation to design and make assignments	●	●	●	●	●	●	●
3.	Engage in design and make assignments in different and progressively more complex contexts, including for purposes and uses beyond the classroom			●	●	●	●	●
4.	Work individually and in teams, taking on different roles and responsibilities							●
6.	Use ICT as appropriate for image capture and generation; data acquisition, capture and handling; controlling; and product realisation	●	●	●	●	●	●	●
7.	Make links between design and technology and other subjects and areas of the curriculum.			●	●	●	●	●