Design & Technology

At primary level, both KS1 and KS2 the design and technology curriculum has hardly changed in any meaningful way. There is a small change at KS2 where students are now required to communicate using a specific list of methods, see below.

KS.1 Programmes of Study

Curriculum 2000	New Curriculum	Changes
Aims During key stage 1 pupils learn: • how to think imaginatively • and talk about what they like and dislike when designing and making. • They build on their early childhood experiences of investigating objects around them. • They explore how familiar things work • and talk about, draw and model their ideas. • to design and make safely and could start to use ICT as part of their designing and making.	**Aims** 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 and school, gardens and playgrounds, the local community, industry and the wider environment.]	No change
Developing, planning and communicating ideas 1. Pupils should be taught to: • generate ideas by drawing on their own and other people's experiences • develop ideas by shaping materials and putting together components • talk about their ideas • plan by suggesting what to do next as their ideas develop • communicate their ideas using a variety of methods, including drawing and making models	**Design** • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	No change
Working with tools, equipment, materials and components to make quality products Pupils should be taught to: • select tools, techniques and materials for making their product from a range suggested by the teacher • explore the sensory qualities of materials • measure, mark out, cut and shape a range of materials • assemble, join and combine materials and components • use simple finishing techniques	**Make** • select from and use a range of tools and equipment to perform practical tasks [such as cutting, shaping, joining and finishing] • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	No change

to improve the appearance of their product, using a range of equipment • follow safe procedures for food safety and hygiene.		
Evaluating processes and products Pupils should be taught to: • talk about their ideas, saying what they like and dislike • identify what they could have done differently or how they could improve their work in the future.	**Evaluate** • explore and evaluate a range of existing products evaluate their ideas and products against design criteria	No change
Knowledge and understanding of materials and components Pupils should be taught to: • about the working characteristics of materials • how mechanisms can be used in different ways	**Technical knowledge** • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms, [such as levers, sliders, wheels and axles], in their products.	No change
Breadth of study • investigating and evaluating a range of familiar products • focused practical tasks that develop a range of techniques, skills, processes and knowledge • design and make assignments using a range of materials, including food, items that can be put together to make products, and textiles.		

KS.2 Programmes of Study

Curriculum 2000	New Curriculum	Changes
Aims During key stage 2 pupils: • work on their own and as part of a team on a range of designing and making activities. • They think about what products are used for and the needs of the people who use them. • They plan what has to be done and identify what works well and what could be improved in their own and other people's designs. • They draw on knowledge and understanding from other areas of the curriculum and use computers in a range of ways.	**Aims** 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.]	No change

Developing, planning and communicating ideas 1. Pupils should be taught to: • generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICT-based sources • develop ideas and explain them clearly, putting together a list of what they want their design to achieve • plan what they have to do, suggesting a sequence of actions and alternatives, if needed • communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.	**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	New curriculum includes a list of ways for students to communicate their ideas: *annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design*
Working with tools, equipment, materials and components to make quality products Pupils should be taught to: • select appropriate tools and techniques for making their product • suggest alternative ways of making their product, if first attempts fail • explore the sensory qualities of materials and how to use materials and processes • measure, mark out, cut and shape a range of materials, and assemble, join and combine components and materials accurately • use finishing techniques to strengthen and improve the appearance of their product, using a range of equipment including ICT • follow safe procedures for food safety and hygiene.	**Make** • select from and use a wider 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	No Change
Evaluating processes and products Pupils should be taught to: • reflect on the progress of their work as they design and make, identifying ways they could improve their products • carry out appropriate tests before making any improvements	**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	No change

• recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose	individuals in design and technology have helped shape the world	
Knowledge and understanding of materials and components Pupils should be taught to: • how the working characteristics of materials affect the ways they are used • how materials can be combined and mixed to create more useful properties • how mechanisms can be used to make things move in different ways, using a range of equipment including an ICT control program • how electrical circuits, including those with simple switches, can be used to achieve results that work.	**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.	No change
Breadth of study • investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them • focused practical tasks that develop a range of techniques, skills, processes and knowledge • design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.		