**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**

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| **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 to improve the appearance of their product, using a range of equipment * follow safe procedures for food safety and hygiene. | **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 |
| **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**

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| **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 * recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose | **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 | No change |
| **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. |  |  |