Design Technology Progression of Knowledge and Skills

Year 1

Design	Make	Evaluate
KS1 Design and Technology National Curriculum 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. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. Children design purposeful, functional, appealing products for themselves and other users based on design criteria. They generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Children can: • use their knowledge of existing products and their own experience to help generate their ideas; • design products that have a purpose and are aimed at an intended user; • explain how their products will look and work through talking and simple annotated drawings; • design models using simple computing software; • plan and test ideas using templates and mock-ups; • understand and follow simple design criteria; • work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment.	**KS1 Design and Technology National Curriculum** 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 making. Children select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Children can: Planning • with support, follow a simple plan or recipe; • begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer; Practical skills and techniques • learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures; • use a range of materials and components, including textiles and food ingredients; • assemble, join and combine materials, components or ingredients; • use a basic running stitch; • cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups; • begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.	**KS1 Design and Technology National Curriculum** 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. Children explore and evaluate a range of existing products. They evaluate their ideas and products against design criteria. Children can: • explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations; • explain positives and things to improve for existing products; • explore what materials products are made from; • talk about their design ideas and what they are making; • evaluate their products and ideas against their simple design criteria;

Technical Knowledge	Cooking and Nutrition
KS1 Design and Technology National Curriculum Children build structures, exploring how they can be made stronger, stiffer and more stable. They explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Children can: • build simple structures, exploring how they can be made stronger, stiffer and more stable; • talk about and start to understand the simple working characteristics of materials and components; • explore and create products using mechanisms, such as levers, sliders and wheels.	**KS1 Design and Technology National Curriculum** Children use the basic principles of a healthy and varied diet to prepare dishes. They understand where food comes from. Children can: • understand that all food comes from plants or animals; • understand that food has to be farmed, grown elsewhere (e.g. home) or caught; • understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why;

Year 2

Design	Make	Evaluate
KS1 Design and Technology National Curriculum 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. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. Children design purposeful, functional, appealing products for themselves and other users based on design criteria. They generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Children can: • use their knowledge of existing products and their own experience to help generate their ideas; • design products that have a purpose and are aimed at an intended user; • explain how their products will look and work through talking and simple annotated drawings; • design models using simple computing software; • plan and test ideas using templates and mock-ups; • understand and follow simple design criteria; • work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment.	**KS1 Design and Technology National Curriculum** 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 making. Children select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Children can: Planning • follow a simple plan or recipe; • select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer; • select from a range of materials, textiles and components according to their characteristics; Practical skills and techniques • learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures; • use a range of materials and components, including textiles and food ingredients; • with help, measure and mark out; • cut, shape and score materials with some accuracy; • assemble, join and combine materials, components or ingredients; • demonstrate how to cut, shape and join fabric to make a simple product; • manipulate fabrics in simple ways to create the desired effect; • confidently use a basic running stitch; • cut, peel and grate ingredients, including measuring and weighing ingredients using measuring equipment; • begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.	**KS1 Design and Technology National Curriculum** 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. Children explore and evaluate a range of existing products. They evaluate their ideas and products against design criteria. Children can: • explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations; • explain positives and things to improve for existing products; • explore what materials products are made from; • talk about their design ideas and what they are making; • as they work, start to identify strengths and possible changes they might make to refine their existing design; • evaluate their products and ideas against their simple design criteria; • start to understand that the iterative process sometimes involves repeating different stages of the process.

Technical Knowledge	Cooking and Nutrition
KS1 Design and Technology National Curriculum Children build structures, exploring how they can be made stronger, stiffer and more stable. They explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Children can: • build simple structures, exploring how they can be made stronger, stiffer and more stable; • talk about and start to understand the simple working characteristics of materials and components; • explore and create products using mechanisms, such as levers, sliders and wheels.	**KS1 Design and Technology National Curriculum** Children use the basic principles of a healthy and varied diet to prepare dishes. They understand where food comes from. Children can: • explain where in the world different foods originate from; • understand that all food comes from plants or animals; • understand that food has to be farmed, grown elsewhere (e.g. home) or caught; • name and sort foods into the five groups in the Eatwell Guide; • understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why; • use what they know about the Eatwell Guide to design and prepare dishes.