



Design and Technology Skills and Knowledge Progression

	Skill Theme 1: Designing	Skill Theme 2: Making	Skill Theme 3: Evaluating	Skill Theme 4: Technical Knowledge	Skill Theme 5: Food and Nutrition
End of Key Stage 1	Describe who their products are for, how they will work and who they are for Use simple design criteria to help develop their ideas Generate ideas by drawing on their own experiences and knowledge of existing products Develop and communicate ideas by talking and drawing Model ideas by exploring materials, components and construction kits and by making templates and mockups	Plan by suggesting what to do next and select from a range of tools and equipment, explaining their choices Select from a range of materials and components according to their characteristics Measure, mark out, cut and shape materials and components Assemble, join and combine materials and components	Make simple judgements about their products and ideas against design criteria - Suggest how their products could be improved Say what they like and dislike about a range of products	Know about the simple working characteristics of materials and components Know about the movement of simple mechanisms such as levers, sliders, wheels and axles Know how freestanding structures can be made stronger, stiffer and more stable	Know that all food comes from plants or animals Know how to name and sort foods Know how to prepare simple dishes safely and hygienically, without using a heat source Know how to use techniques such as cutting, peeling and grating
End of Lower Key Stage 2	Gather information about the needs and wants of particular individuals and groups Indicate the design features of their products that will appeal to intended users Develop their own design criteria and use these to inform their ideas	Order the main stages of making Explain their choice of tools and equipment in relation to the skills and techniques they will be using Explain their choice of materials and components according to functional properties and aesthetic qualities	Identify the strengths and areas for development in their ideas and products Consider the views of others, including intended users, to improve their work Use their design criteria to evaluate their completed products	Know that materials have both functional properties and aesthetic qualities Know how mechanical systems such as levers and linkages or pneumatic systems create movement Know how to make strong, stiff shell structures	Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking
End of Upper Key Stage 2	Indicate the design features of their products that will appeal to intended users Carry out research, using surveys, interviews, questionnaires and web-based resources Develop a detailed design specification to guide their thinking	Select materials and components suitable for the task Explain their choice of materials and components according to functional properties and aesthetic qualities Formulate step-by-step plans as a guide to making	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make using their design criteria Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	Know how to use some learning from science and maths to help design and make products that work Know how mechanical systems such as cams or pulleys or gears create movement Know how more complex electrical circuits and components can be used to create functional products Know how to reinforce and strengthen a 3D framework	Know that seasons may affect the food available Know how food is processed into ingredients that can be eaten or used in cooking Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking