



Key Thread	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Know how to design products for an intended user using simple design criteria, investigating existing products and through drawing on their own experiences. Know how to model ideas using drawings and mock-ups.	Know how to design products for an intended user using simple design criteria to develop and communicate ideas. Know how to use communication technology to develop and communicate ideas.	Know how to design purposeful, appealing products for an intended user, using their own design criteria to develop and inform their ideas. Know how to model ideas using prototypes and pattern pieces.	Know how to design purposeful, appealing products for an intended user taking into account their needs and wants. Know how to develop and communicate ideas using annotated sketches, cross-sectional drawings and exploded diagrams.	Know how to generate innovative ideas by carrying out research (e.g. surveys, interviews, questionnaires and web based resources) to design purposeful, appealing products. Know how to communicate ideas using computer-aided design.	Know how to identify the needs, wants, preferences and values of particular individuals or groups to design purposeful, appealing products. Know how to make design decisions taking account of constraints such as time, resources and cost.
Make	Know that there is a range of different tools and equipment used for different jobs.	Know which tools, equipment, materials and components to select for a task and explain why.	Know which tools, equipment, materials and components are the most suitable for the task.	Know which tools, equipment and materials are required and list them.	Know which tools and equipment are needed in relation to the techniques being used.	Know which materials and components to select according to their functional properties and aesthetic qualities.



	Know how to measure, mark out, cut and shape materials Know how to assemble and join materials.	Know how to measure, mark out, cut, shape and combine materials Know how to assemble and join materials and components	Know how to assemble a product in the correct order.		Know how to create a step-by-step plan as a guide to making.	
Evaluate	<i>Existing products</i> Know what a product is. Know how products work. Know what they like or dislike about products. <i>Own products</i> Know that evaluation informs the design process.	<i>Existing products</i> Know how products are used or might be used. Know what materials products are made from. <i>Own products</i> Know that evaluation informs and improves future design.	<i>Existing products</i> Know how well products have been designed and made. Know why materials have been chosen. Know how well products work. <i>Own products</i> Know to refer to their design criteria during design, make and evaluation. Know how to	<i>Existing products</i> Know where products are made. Know whether products can be recycled or reused. Know how well products meet user needs and wants. <i>Own products</i> Know to refer to their design criteria during design, make and evaluation.	<i>Existing products</i> Know which methods of construction have been used. Know how much products cost to make. Know how innovative products are. <i>Own products</i> Know how to evaluate their ideas and products against the	<i>Existing products</i> Know how well products achieve their purposes. Know how sustainable the materials in products are. Know what impact products have beyond their intended purpose. <i>Own products</i> Know how to evaluate their ideas and products against the original



			identify strengths and weaknesses in their ideas or products. Know how to take the views and opinions of others to improve their work.	Know how to identify strengths and weaknesses in their ideas or products. Know how to take the views and opinions of others to improve their work.	original design specification. Know how to critically evaluate the quality of the design, manufacture and fitness for the purpose of their products as they design and make. Know how to take the views and opinions of others to improve their work.	design specification. Know how to critically evaluate the quality of the design, manufacture and fitness for the purpose of their products as they design and make. Know how to take the views and opinions of others to improve their work.
Technical Knowledge	Know how to make something move using sliders and levers (mechanisms)	Know how to make something move using axles and wheels (mechanisms) Know how to make freestanding structures stronger, stiffer and more stable	Know how simple mechanical systems work (levers and linkages)	Know how to incorporate electrical systems into a product (e.g. switches, bulbs, buzzers and motors)	Know how more complex mechanical systems work (cams and gears)	Know how to control, program and monitor products using a computer.



Cooking and Nutrition	Know where food comes from.	Know that food can be divided into different groups.			Know and explain seasonality	Know how ingredients are grown, reared, farmed and processed.
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