

Designing	Key Stage 1	Key Stage 2
Understanding contexts, users and purposes	<ul style="list-style-type: none"> work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment state what products they are designing and making say whether their products are for themselves or other users describe what their products are for say how their products will work say how they will make their products suitable for their intended users use simple design criteria to help develop their ideas 	<ul style="list-style-type: none"> work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment describe the purpose of their products indicate the design features of their products that will appeal to intended users explain how particular parts of their products work
		<p>In lower KS2 pupils should also:</p> <ul style="list-style-type: none"> gather information about the needs and wants of particular individuals and groups develop their own design criteria and use these to inform their ideas
		<p>In upper KS2 pupils should also:</p> <ul style="list-style-type: none"> carry out research, using surveys, interviews, questionnaires and web-based resources identify the needs, wants, preferences and values of particular individuals and groups
Generating, developing, modelling and communicating ideas	<ul style="list-style-type: none"> generate ideas by drawing on their own experiences use knowledge of existing products to help come up with ideas develop and communicate ideas by talking and drawing model ideas by exploring materials, making templates and mock-ups use ICT where appropriate, to develop and communicate their ideas 	<ul style="list-style-type: none"> share and clarify ideas through discussion model their ideas using prototypes and pattern pieces use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas use computer-aided design to develop and communicate their ideas
		<p>In lower KS2 pupils should also:</p> <ul style="list-style-type: none"> generate realistic ideas, focusing on the needs of the user
		<p>In upper KS2 pupils should also:</p> <ul style="list-style-type: none"> generate innovative ideas, drawing on research

Making	Key Stage 1	Key Stage 2
Planning	<ul style="list-style-type: none"> <i>explain their choices</i> select from a range of tools and equipment, select from a wide range of materials and components including construction materials, textiles, food ingredients according to their characteristics 	<ul style="list-style-type: none"> select from a wider range of tools and equipment (<i>and explain their choice</i>) select from a wider range materials and components explain their choice of materials and components according to functional properties and aesthetic qualities
		<p>In lower KS2 pupils should also:</p> <ul style="list-style-type: none"> <i>order the main stages of making</i>
		<p>In upper KS2 pupils should also:</p> <ul style="list-style-type: none"> <i>produce appropriate lists of tools, equipment and materials that they need</i> <i>formulate step-by-step plans as a guide to making</i>
Practical skills and techniques	<ul style="list-style-type: none"> follow procedures for safety and hygiene use a range of tools and equipment to perform practical tasks including cut, shape, join and finish materials and components use a wide range of materials and components according to their characteristics 	<ul style="list-style-type: none"> follow procedures for safety and hygiene use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components
		<p>In lower KS2 pupils should also:</p> <ul style="list-style-type: none"> measure, mark out, cut and shape materials and components with some accuracy assemble, join and combine materials and components with some accuracy apply a range of finishing techniques with some accuracy
		<p>In upper KS2 pupils should also:</p> <ul style="list-style-type: none"> accurately measure, mark out, cut and shape materials and components accurately assemble, join and combine materials and components accurately apply a range of finishing techniques demonstrate resourcefulness when tackling practical problems

Evaluating	Key Stage 1	Key Stage 2
Own ideas and products	<ul style="list-style-type: none"> • talk about their design ideas and what they are making • make simple judgements about their products and ideas against design criteria 	<ul style="list-style-type: none"> • 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 own design criteria to evaluate their completed products
		In lower KS2 pupils should also: <ul style="list-style-type: none"> • refer to their design criteria as they design and make
		In upper KS2 pupils should also: <ul style="list-style-type: none"> • critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
Existing products	<ul style="list-style-type: none"> • explore and evaluate existing products e.g. • who/what products are for • how products work • how/where products are used • what/why products are made from certain materials • what they like and dislike about products 	Across KS2 pupils should investigate and analyse a range of existing products: <ul style="list-style-type: none"> • how well products have been designed and made • why materials have been chosen and what methods of construction have been used • how well products work, achieve their purpose and meet the user needs and wants
		In lower KS2 pupils should also investigate and analyse: <ul style="list-style-type: none"> • who designed and made the products • where and when were products designed and made • whether products can be recycled or reused
		In upper KS2 pupils should also investigate and analyse: <ul style="list-style-type: none"> • how much products cost to make • how innovative products are • how sustainable the materials in products are • what impact products have beyond their intended purpose
Key events and individuals	Not a requirement in KS1	<ul style="list-style-type: none"> • understand how key events and individuals in design and technology have helped shape the world e.g. inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products

Technical Knowledge	Key Stage 1	Key Stage 2
Making products work	<ul style="list-style-type: none"> • explore and use simple moving mechanisms such as levers, sliders, wheels and axles • build structures exploring how they can be made stronger, stiffer and more stable 	<ul style="list-style-type: none"> • use learning from science (electrical systems) to help design and make products that work e.g. series circuits incorporating switches, bulbs, buzzers and motors
		In lower KS2 pupils should also know: <ul style="list-style-type: none"> • how mechanical systems such as levers and linkages or pneumatic systems create movement • how simple electrical circuits and components can be used to create functional products • how to strengthen and stiffen more complex structures
		In upper KS2 pupils should also know: <ul style="list-style-type: none"> • how mechanical systems such as cams or pulleys or gears create movement • how more complex electrical circuits and components can be used to create functional products • how to apply their understanding of computing to program, monitor and control their products. • how to reinforce and strengthen a 3D framework

Cooking and Nutrition	Key Stage 1	Key Stage 2
Where food comes from	<ul style="list-style-type: none"> • know that all food comes from plants or animals • that food has to be farmed, grown elsewhere (e.g. home) or caught 	<ul style="list-style-type: none"> • 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 <p>In upper KS2 pupils should also know:</p> <ul style="list-style-type: none"> • that seasons may affect the food available • how food is processed into ingredients that can be eaten or used in cooking
Food preparation, cooking and nutrition	<ul style="list-style-type: none"> • know how to name and sort foods into the five groups in The Eatwell plate and that a varied diet is a healthy diet • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating 	<ul style="list-style-type: none"> • 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 <p>In lower KS2 pupils should also know:</p> <ul style="list-style-type: none"> • that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell plate • that to be active and healthy, food and drink are needed to provide energy for the body <p>In upper KS2 pupils should also know:</p> <ul style="list-style-type: none"> • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health