



Early Years Foundation stage Early Learning Goals	Key stage 1 National curriculum expectation	Key stage 2 National curriculum expectation
<p>Expressive Arts and Design ELG: Creating with Materials Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; • Share their creations, explaining the process they have used; 	<p>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 [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:</p> <p><u>Design</u></p> <ul style="list-style-type: none"> • 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 <p><u>Make</u></p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks [for example, 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 <p><u>Evaluate</u></p> <ul style="list-style-type: none"> • Explore and evaluate a range of existing products • Evaluate their ideas and products against design criteria <p><u>Technical knowledge</u></p>	<p>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 [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].</p> <p><u>Design</u></p> <ul style="list-style-type: none"> • 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 <p><u>Make</u></p> <ul style="list-style-type: none"> • Select from and use a wider range of tools and equipment to perform practical tasks [for example, 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 <p><u>Evaluate</u></p> <ul style="list-style-type: none"> • Investigate and analyse a range of existing products



	<ul style="list-style-type: none"> • Build structures, exploring how they can be made stronger, stiffer and more stable • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. <p><u>Cooking and nutrition</u> As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught:</p> <ul style="list-style-type: none"> • Use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from. 	<ul style="list-style-type: none"> • 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 <p><u>Technical knowledge</u></p> <ul style="list-style-type: none"> • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • Apply their understanding of computing to program, monitor and control their products <p><u>Cooking and nutrition</u> As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught:</p> <ul style="list-style-type: none"> • Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
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Design (Understanding context users and purposes / Generating, Developing, Modeling and communicating ideas)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds,</p> <p>State what products they are designing and making</p> <p>describe what their products are for</p> <p>generate ideas by drawing on their own experiences</p> <p>develop and communicate ideas by talking and drawing</p>	<p>work confidently within a range of contexts, such as local community industry and the wider environment</p> <p>say whether their products are for themselves or other users</p> <p>say how their products will work</p> <p>say how they will make their products suitable for their intended users</p> <p>use simple design criteria to help develop their ideas</p> <p>use knowledge of existing products to help come up with ideas</p>	<p>work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment</p> <p>describe the purpose of their products</p> <p>share and clarify ideas through discussion</p> <p>use annotated sketches,</p>	<p>indicate the design features of their products that will appeal to intended users</p> <p>explain how particular parts of their products work</p> <p>model their ideas using prototypes and pattern pieces</p> <p>use annotated sketches,</p> <p>generate realistic ideas, focusing on the needs of the user</p>	<p>gather information about the needs and wants of particular individuals and groups</p> <p>develop their own design criteria and use these to inform their ideas</p> <p>use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas</p> <p>generate innovative ideas, drawing on research</p>	<p>carry out research, using surveys, interviews, questionnaires and web-based resources</p> <p>identify the needs, wants, preferences and values of particular individuals and groups</p> <p>develop a simple design specification to guide their thinking</p> <p>use computer-aided design to develop and communicate their ideas</p>



		<p>model ideas by exploring materials, components and construction kits and by making templates and mockups</p> <p>use information and communication technology, where appropriate, to develop and communicate their ideas</p>				
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Make (Planning /Practical skills and Technique)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>Plan by suggesting what to do next select from a range of tools and equipment, Follow procedures for safety and hygiene</p> <p>Use a range of materials and</p>	<p>Select from a range of tools and equipment, explaining their choices select from a range of materials and components according to their characteristics</p>	<p>Select tools and equipment suitable for the task order the main stages of making</p> <p>Follow procedures for safety and hygiene</p>	<p>Select materials and components suitable for the task order the main stages of making</p> <p>Follow procedures for safety and hygiene</p>	<p>Explain their choice of materials and components according to functional properties and aesthetic qualities</p> <p>Produce appropriate lists of tools, equipment</p>	<p>Explain their choice of materials and components according to functional properties and aesthetic qualities</p> <p>Formulate step-by-step plans</p>



	<p>components, including construction materials and kits, textiles, food ingredients and mechanical components assemble, join and combine materials and components</p>	<p>Follow procedures for safety and hygiene measure, mark out, cut and shape materials and components</p> <p>Use finishing techniques, including those from art and design</p>	<p>Measure, mark out, cut and shape materials and components with some accuracy</p> <p>Assemble, join and combine materials and components with some accuracy</p>	<p>Use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components</p> <p>Apply a range of finishing techniques, including those from art and design, with some accuracy</p>	<p>and materials that they need</p> <p>Follow procedures for safety and hygiene</p> <p>Use techniques that involve a number of steps</p> <p>Demonstrate resourcefulness when tackling practical problems</p>	<p>as a guide to making</p> <p>Follow procedures for safety and hygiene</p> <p>Accurately measure, mark out, cut and shape materials and components</p> <p>Accurately assemble, join and combine materials and components</p> <p>Accurately apply a range of finishing techniques, including those from art and design</p>
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Evaluate (Own ideas and products / Existing products / Key events and individuals)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Talk about their design ideas and what they are making	Make simple judgements about their products and ideas against design criteria	Identify the strengths and areas for development in their ideas and products refer to their design criteria	Use their design criteria to evaluate their completed products	Consider the views of others, including intended users, to improve their work	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as



	<p>Verbally suggest how their products could be</p> <p>Across KS1 pupils should explore:</p> <ul style="list-style-type: none"> • what products are for • who products are for • what products are for • how products work • how products are used • where products might be used • what materials products are made from • what they like and dislike about products 	<p>suggest how their products could be</p> <p>Across KS1 pupils should explore:</p> <ul style="list-style-type: none"> • what products are for • who products are for • what products are for • how products work • how products are used • where products might be used • what materials products are made from • what they like and dislike about products 	<p>as they design and make</p> <p>How well products have been made</p> <p>Why materials have been chosen</p> <p>How well products work</p>	<p>Who designed and made the products</p> <p>Where products were designed and made</p> <p>When products were designed and made</p> <p>Whether products can be recycled or reused</p>	<p>How well products have been designed</p> <p>What methods of construction have been used</p> <p>How well products achieve their purposes</p> <p>How well products meet user needs and wants</p> <p>About inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products</p>	<p>they design and make</p> <p>Evaluate their ideas and products against their original design specification</p> <p>how much products cost to make</p> <p>How innovative products are</p> <p>How sustainable the materials in products are</p> <p>What impact products have beyond their intended purpose</p> <p>About inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products</p>
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Technical knowledge (Making products work)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>About the simple working characteristics of materials and components</p> <p>How freestanding structures can be made stronger, stiffer and more stable</p>	<p>About the movement of simple mechanisms such as levers, sliders, wheels and axles</p> <p>Build upon the correct technical vocabulary for the projects they are undertaking</p>	<p>That materials can be combined and mixed to create more useful characteristics</p> <p>The correct technical vocabulary for the projects they are undertaking</p> <p>That materials have both functional properties and aesthetic qualities</p> <p>How to program a computer to control their products</p> <p>How to make strong, stiff shell structures</p>	<p>That mechanical and electrical systems have an input, process and output</p> <p>The correct technical vocabulary for the projects they are undertaking</p> <p>In early KS2 pupils should also know:</p> <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 	<p>Make cross curricular links to learning through science and mathematics to help design and make products that work.</p> <p>The correct technical vocabulary for the projects they are undertaking</p> <p>How mechanical systems such as cams or pulleys or gears create movement</p> <p>How to program a computer to monitor changes in the environment and control their products</p>	<p>Make cross curricular links to learning through science and mathematics to help design and make products that work.</p> <p>The correct technical vocabulary for the projects they are undertaking</p> <p>How more complex electrical circuits and components can be used to create functional products</p> <p>How to reinforce and strengthen a 3D framework</p>



Cooking and Nutrition (Where food comes from / Food Preparation, Cooking and Nutrition)						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>That all food comes from plants or animals</p> <p>That everyone should eat at least five portions of fruit and vegetables every day</p> <p>How to prepare simple dishes safely and hygienically, without using a heat source</p>	<p>That food has to be farmed, grown elsewhere (e.g. home) or caught</p> <p>How to name and sort foods into the five groups in The eatwell plate</p> <p>How to use techniques such as cutting, peeling and grating</p>	<p>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> <p>Across Key stage 2: How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>	<p>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> <p>Across Key stage 2: How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>	<p>That seasons may affect the food available</p> <p>How food is processed into ingredients that can be eaten or used in cooking</p> <p>Across Key stage 2: How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>	<p>Across Key stage 2: How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</p> <p>How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p>That recipes can be adapted to change the appearance, taste, texture and aroma that different food and drink contain different substances – nutrients, water and</p>



			<p>That a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate</p> <p>That to be active and healthy, food and drink are needed to provide energy for the body</p>	<p>That a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate</p> <p>That to be active and healthy, food and drink are needed to provide energy for the body</p>		<p>fibre – that are needed for health</p>
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