

Objectives:

Design

1. design purposeful, functional, appealing products for themselves and other users based on design criteria
2. generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

3. select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
4. select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate

5. explore and evaluate a range of existing products
6. evaluate their ideas and products against design criteria

Technical knowledge

7. build structures, exploring how they can be made stronger, stiffer and more stable
8. explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking and Nutrition

9. understand and apply the principles of a healthy and varied diet
10. prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
11. understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Developing, planning and communicating ideas		Working with tools, equipment, materials and components to make quality products		Evaluating processes and products		Food and nutrition	
Year 3	Year 4	Year 3	Year 4	Year 3	Year 4	Year 3	Year 4
<p>With growing confidence generate ideas for an item, considering its purpose and the user/s.</p> <p>Start to order the main stages of making a product.</p> <p>Identify a purpose and establish criteria for a successful product.</p> <p>Understand how well products have been designed, made, what materials have been used and the construction technique.</p> <p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</p> <p>Start to understand whether products can be recycled or reused.</p> <p>Know to make drawings with labels when designing.</p> <p>When planning explain their choice of materials and components including function and aesthetics.</p>	<p>Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science.</p> <p>Confidently make labelled drawings from different views showing specific features.</p> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.</p> <p>Identify the strengths and areas for development in their ideas and products.</p> <p>When planning consider the views of others, including intended users, to improve their work.</p> <p>Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</p> <p>When planning explain their choice of materials and components according to function and aesthetic.</p>	<p>Select a wider range of tools and techniques for making their product i.e. construction materials and kits, textiles, food ingredients, mechanical components and electrical components.</p> <p>Explain their choice of tools and equipment in relation to the skills and techniques they will be using.</p> <p>Start to understand that mechanical and electrical systems have an input, process and output.</p> <p>Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement.</p> <p>Know how simple electrical circuits and components can be used to create functional products.</p> <p>Measure, mark out, cut, score and assemble components with more accuracy.</p> <p>Start to work safely and accurately with a range of simple tools.</p> <p>Start to think about their ideas as they make progress and be willing to change things if this helps them to improve their work.</p> <p>Start to measure, tape or pin, cut and join fabric with some accuracy.</p>	<p>Select a wider range of tools and techniques for making their product safely.</p> <p>Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</p> <p>Start to join and combine materials and components accurately in temporary and permanent ways.</p> <p>Know how mechanical systems such as cams or pulleys or gears create movement.</p> <p>Understand how more complex electrical circuits and components can be used to create functional products.</p> <p>Continue to learn how to program a computer to monitor changes in the environment and control their products.</p> <p>Understand how to reinforce and strengthen a 3D framework.</p> <p>Now sew using a range of different stitches, to weave and knit.</p> <p>Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy.</p> <p>Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment</p>	<p>Start to evaluate their product against original design criteria e.g. how well it meets its intended purpose</p> <p>Begin to disassemble and evaluate familiar products and consider the views of others to improve them.</p> <p>Evaluate the key designs of individuals in design and technology has helped shape the world.</p>	<p>Evaluate their products carrying out appropriate tests.</p> <p>Start to their work both during and at the end of the assignment.</p> <p>Be able to disassemble and evaluate familiar products and consider the views of others to improve them.</p> <p>Evaluate the key designs of individuals in design and technology has helped shape the world.</p>	<p>Start to 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> <p>Understand 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>Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'</p> <p>Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.</p>	<p>Understand that food is grown (such as tomatoes, wheat and 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			including ICT.			
How we achieve these						
Year 3						
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Theme: Inspirational People	Theme: The Stone Age	Theme: Journeys – Light Boxes	Theme: Changing Places – Gingerbread making	Theme: Space – Moon buggies	Theme: The Bronze Age – Clay pots	
NC Reference: C9, C10, D1, M4, E6	NC Reference: D2, M3, M4, E6	NC Reference:	NC Reference	NC Reference: D1, M3, M4, E6, T7, T8	NC Reference: D2, M3, E5, T7, T8	
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Vocabulary: Follow creative process plan, design, make, Adaptation, Sources Variation, Design Design processes – Design brief, nutrient, healthy, Nutritious, Balanced diet, fat, Carbohydrates, Fat Ingredients, tasting mass production, savoury, sweet, Annotate, Develop, Refine and alter, Description	Vocabulary:	Vocabulary: Follow creative process plan, design, make, Adaptation, Sources Variation, Design Design processes – Design brief, sampler, fabric, repeat, pattern: colour combinations reversed; polyester, transfer, permanent, fast, Colour-scheme, Colour spectrum, tertiary Colours, Developed colour, Colour washing, Properties of paint, Grades of pencil, Scale, Symmetry, pattern pieces, assemble, Annotate, Develop, Refine and alter, Description	Vocabulary:	Vocabulary: Follow creative process plan, design, make, Adaptation, Sources Variation, Design Design processes – Design brief, Colour-scheme, Colour spectrum, tertiary Colours, Developed colour, Colour washing, Properties of paint, Grades of pencil, Scale, Symmetry, pattern pieces, assemble, Cut, Measure, Glue, Picture, image, speech bubble mechanism, lever, pivot, wheel, disk, centre, Annotate, Develop, Refine and alter, Description	Vocabulary: Follow creative process plan, design, make, Adaptation, Sources Variation, Design Design processes – Design brief, Colour-scheme, Colour spectrum, tertiary Colours, Developed colour, Colour washing, Properties of paint, Grades of pencil, Scale, Symmetry, pattern pieces, assemble, Annotate, Develop, Refine and alter, Description	

Year 4										
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2					
Theme: The Amazon – Making Amazonian head dresses	Theme: Dragons – Dragon eggs	Theme: The Egyptians – Making a canopic jar	Theme: Chocolate – Making a chocolate bar	Theme:	Theme: To prepare and cook a savoury dish from a chosen continent					
NC Reference: D2, M3, E6	NC Reference: D2, M4, E6	NC Reference: D2, M4, E6	NC Reference: D1, M4, E5	NC Reference:	NC Reference: D1, M3, M4, C10, C9, E6					
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contrast variation follow</p>	<p>Vocabulary: carving surface form symbolic pinch plan create design evaluate source</p>	<p>Vocabulary: melting design plan make evaluate adaption variation contrast chill</p>	<p>Vocabulary:</p>	<p>Vocabulary: Similarities, Brief, Follow creative, process plan, design, make, adaptation Sources , Variation, Follow creative process, plan, design, make Adapt, Fry, bake, roast, grill, boil, Chill, Fibre Sugars, comparison, contrast</p>