

Mapping of curriculum subjects to National Curriculum

Design

Blossom tree Nursery

Design and development	Making	Product and Evaluation
Talk about what they want to make	Make models randomly To realise tools can be used for a purpose.	Be excited about what they have made Begin to select appropriate resources

Nursery

Design and development	Making	Product and Evaluation
Show curiosity about objects, events and people Find ways to solve problems/find new ways to do things/test their ideas	Make simple models, not necessarily with a purpose using a range of tools.	Use simple terms to talk about their own and others' work

Reception

Design and development	Making	Product and Evaluation
Generate ideas from their own experience Talk about their ideas and say what will be done Describe what they want to do using pictures and words Make decisions about how to approach a task, solve a problem and reach a goal	Chose the resources they need for their chosen activities Begin to handle equipment and tools effectively and safely Make props for role play	Use simple terms to talk about their own and others' work; reviewing how well the approach worked.
Early Learning Goals: <ul style="list-style-type: none"> • Choose the resources they need for their chosen activities • Handle equipment and tools effectively • Children know the importance for good health of a healthy diet • They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. • They represent their own ideas, thoughts and feelings through design and technology 		

Y1

Knowledge	Skills
To know what a design is To know what a product is	To say what product I am designing and making and saying who it is for To design a product, show it and talk about it
To know the benefits of fruit and vegetables To know where fruits and vegetables come from	
Make	
To know how to use the tools – knives and scissors To know the safety routines for keeping safe when using knives and scissors and adhesives	To cut and shape materials and components

To know how to assemble and join using adhesives	
Evaluate	
	To say if I like my finished product
Technical knowledge	
To know how to make a structure more stable by using different materials To know how to make a structure stronger by using different materials	

Y2

Knowledge	Skills
To know what a template/pattern is To know the main rules for food hygiene To know the different between raw and cooked food	To say how my product will work To say who my product is for To plan and design a product To produce a template/pattern to present To use simple scales or balances
Make	
To know how to use the tools scissors, roller cutter and knives To know how to use the construction materials: art straws and corrugated plastic sheets To know the textiles Binka, felt and cotton To know the ingredients flour, butter, water eggs and yeast To know how to cut using scissors, knives, roller cutters To know how to measure using a 30cm rule and a 1m rule To know how to shape using cutting, folding and joining techniques To assemble and join using adhesives, including a glue gun and needle and thread To finish a product using appropriate packaging	
Evaluate	
	To compare my product to the plan, saying if it is usable for the user and purpose
Technical Knowledge	
To know how to use various mechanisms: levers, sliders, wheels and axels	

Key stage 1 End Point

Pupils should be taught to:

<p>Design</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>Make</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>Evaluate</p> <ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria
<p>Technical knowledge</p> <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>Cooking and Nutrition</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.

Y3

Knowledge	Skills
To know what a model is To know what an annotated sketch is To know how to boil food	To gather information to develop my own design To develop, model and communicate my idea through discussion and annotated sketches
Make	
To know the tools vice, coping saw, junior hacksaw, sandpaper and file To begin to select their own ingredients when cooking or baking To use packaging to identify where a fruit or vegetable comes from	To use a sequence of actions I need to complete and make my product To make good presentation of food
Evaluate	
	To carry out evaluations and record using tables and graphs
Technical knowledge	
To know how to strengthen, stiffen and reinforce complex structures using struts, rafters, cross brace and girders To know safe ways to store food	

Y4

Knowledge	Skills
To know what a cross sectional diagram is To know which fruits and vegetables are best suited for which recipe	To gather information to develop my own design and use it to inform ideas To gather information to develop my design and use it to inform ideas through cross sectional diagrams

To know which animals various meats comes from	To be able to identify the seasonality of fruit and vegetables
To know which foods are best suited to boiling, baking and roasting	
Make	
To know how to work with wood and plastic	To select and use appropriate equipment and tools to prepare and combine materials To be able to select materials according to preference
Evaluate	
To know what design criteria is	To evaluate on going work, making simple changes – for example colour and materials, with reference to design criteria To evaluate food by taste, texture and flavour
Technical knowledge	
To know how to use the mechanical systems: gears, pulleys, cams, levers and linkages	

Y5

Knowledge	Skills
To know what a prototype is	To gather a range of information to develop my own design and use it to inform ideas
To know which foods are best suited to boiling, baking, roasting and frying	To gather a range of information to develop my own design and use it to inform ideas through prototypes
Make	
To know how to measure using various scales To measure mass and using trigonometry sets	To write instructions on how to make my product
To use proportions when cooking, by doubling and halving recipes	To identify the most appropriate fruits and vegetables to use for recipes based on cost, seasonality and environmental footprint
To know how to identify the environmental footprint of foodstuffs apart from fruit and vegetables (meat, canned goods, dried goods)	
Evaluate	
	To carry out evaluations on a range of products and record using labels, graphs and charts
Technical knowledge	
To know how to use electrical systems in their products incorporating: bulbs, switches, buzzers and motors	

Y6

Knowledge	Skills
To know what computer aided design is	To gather information from a range of sources to develop my own design and use it to inform ideas To gather information from a range of sources to develop my own design and use it to inform ideas through pattern pieces and computer aided design
Make	

To apply the principles of a healthy diet when preparing and making savoury dishes	To select and use appropriate tools for accurate measuring and combining materials To present my product appropriately for example with packaging To use boiling, baking, roasting and frying to make a range of healthy savoury dishes
Evaluate	
To know how key professionals have influenced changes for further improvement and development (John Ive - Apple)	To evaluate ongoing work, making simple changes: colour and materials with reference to design criteria and views of others and identify improvements
Technical Knowledge	
To know how to use computer programs to control products	

Keystage 2 End Point

Pupils should be taught to:

<p>Design</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>Make</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>Evaluate</p> <ul style="list-style-type: none"> • investigate and analyse a range of existing products • 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>Technical knowledge</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>Cooking and Nutrition</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.