

Curriculum skills progression - DT

	Design	Make	Evaluate	Technical Knowledge	Cooking Nutrition
Nursery	<p>Design and experiments to create different textures, that are appealing to themselves and others.</p> <p>Explore what they can do with different media and what happens when they put different things together such as sand, paint and sawdust.</p> <p>Generate, develop and model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, ICT</p>	<p>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>	<p>Say what they like and dislike about products they make.</p> <p>Know when they have made a mistake</p>	<p>Children explore a variety of toys, exploring how they work and begin to use them purposefully.</p> <p>Begin to name tools and materials they have used.</p>	<p>Begin to know and understand the need for basic hygiene in cooking</p> <p>Begin to know about the need for a variety of foods in a diet.</p> <p>Begin to develop a food vocabulary.</p>
Reception	<p>Design and experiments to create different textures, that are appealing to themselves and others.</p> <p>Generate, develop and model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, ICT</p> <p>experiments to create different textures. Manipulate materials to create a planned effect.</p> <p>Constructs with a purpose in mind, using a variety of resources.</p>	<p>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>	<p>Evaluate the purpose of designs they find in their homes and schools.</p> <p>Begin to think about how the materials they have used work within their design.</p> <p>Children can think about how things work.</p>	<p>Students should know the simple working characteristics of material and components.</p> <p>With support children to coordinate actions to use technology, eg: call a telephone number.</p>	<p>Work safely and hygienically.</p> <p>Begin to know about the need for a variety of foods in a diet.</p> <p>Be able to group familiar food products.</p> <p>Know about the Eatwell plate.</p> <p>Begin to know where food comes from.</p> <p>Continue to develop a food and nutrition vocabulary.</p> <p>Cut and mix ingredients with support.</p>



Year 1	Developing planning and communicating ideas: Explain what they are making and which materials they are using. Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate. Select materials from a limited range that will meet the design criteria. Select and name the tools needed to work the materials. Working with tools, equipment, materials and components to make quality products: Use a range of materials to create models.	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 - Make their design using the appropriate techniques. - With help measure, mark out, cut and shape a range of materials. -Use tools safely. -Assemble, join and combine materials and components together using a variety of temporary materials e.g. glue and masking tape. -Use simple finishing techniques to improve the finish of their product.	Start to explore and evaluate a range of existing products: -describe how something works -identify likes and dislikes of theirs and others designs and why - is the product functional? - does it work in relation to the design criteria	Students should know the simple working characteristics of material and components. The movement of simple mechanism such as levers and sliders Free standing structures can be made stronger, stiffer and more stable such as walls, buttresses, towers and framework e.g. weight bearing structures. 3D textile product can be assembled from 2 identical fabric shape. such as joining fabric shapes together using a variety of techniques including staple and lacing and gluing.	Work safely and hygienically. Understand the need for a variety of foods in a diet. Know about the Eatwell plate. Use the basic principles of healthy and varied diet to prepare dishes. Group familiar food products in different ways (eg: fruit/veg, healthy/unhealthy) Begin to name major food groups. Cut and chop a range of ingredients (cut, chop, mix, peel)
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<p>Year 2</p>	<p>Developing planning and communicating ideas: Use pictures and words to convey what they want to design and make. Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate. Select appropriate technique explaining; First...Next...Last Explore ideas by rearranging materials. Describe their models and drawings of ideas and intentions. Add notes to drawings to help explanations. Design a product from detailed design criteria. Working with tools, equipment, materials and components to make quality products: Attach wheels to a chassis using an axle.</p>	<p>-Begin to select tools and materials; use vocab to describe them. - Measure, cut and score with some accuracy. - Use hand tools safely and appropriately. -Assemble, join and combine materials and components together using a variety of temporary materials e.g. glue and masking tape. In order to make a product. -Cut, colour and shape fabric to make a simple garment. -Use basic sewing techniques. -Choose and use appropriate finishing techniques.</p>	<p>Evaluate their ideas and products Evaluate against a design criteria</p> <ul style="list-style-type: none">- explain what went well- suggest improvements to their own and others designs- start to evaluate their design as it is in progress- identify strengths and possible changes they would potentially make <p>Evaluate a range of existing products</p> <ul style="list-style-type: none">- explain what they like and dislike about the products and why	<p>Students should know the simple working characteristics of material and components.</p> <p>The movement of simple mechanism such as wheels and axles.</p> <p>Free standing structures can be made stronger, stiffer and more stable such as walls, buttresses, towers and framework e.g. weight bearing structures using different materials.</p> <p>3D textile product can be assembled from 2 identical fabric shape. such as joining fabric shapes together using a variety of techniques including stitching.</p>	<p>-Work safely and hygienically. Use the basic principles of healthy and varied diet to prepare dishes.</p> <p>Cut, peel, grate, chop a range of ingredients.</p> <p>Know about the Eatwell plate</p> <p>Understand where a variety of food comes from.</p>
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<p>Year 3</p>	<p>Developing planning and communicating ideas: Draw/sketch products to help analyse and understand how products are made. Think ahead about the order of their work and decide upon tools and materials. Record and plan by drawing (labelled sketches) or writing. Communicate ideas through discussion and add notes to drawings to help explanations. Design innovative, functional, appealing products that are fit for purpose that are aimed at particular groups or individuals. Working with tools, equipment, materials and components to make quality products: Make structures more stable by giving them a wide base.</p>	<p>-Select tools and techniques for making their product. -Measure, mark out, score and assemble components with more accuracy. - Work safely and accurately with a range of simple tools. - Think about their ideas as they make progress and be willing to change things if this helps them improve their work. -Measure, tape or pin, cut and join fabric with some accuracy. -Using finishing techniques, strengthening and improve the appearance of their product using a range of equipment including ICT.</p>	<p>Investigate and analyse a range of existing products</p> <ul style="list-style-type: none">- begin to disassemble and evaluate familiar products <p>Evaluate their ideas and products against the design criteria</p> <ul style="list-style-type: none">- explain what they changed, which made their design better- how well does it meet the original design criteria <p>Consider the views of others to improve their work</p> <ul style="list-style-type: none">- take on constructive criticism and begin to incorporate their peers ideas, to improve their design- <p>Identify some great designers and how their products have influenced the world</p> <ul style="list-style-type: none">- who designed and made existing products- when were these products designed and made	<p>Students should know the simple working characteristics of material and components.</p> <p>Across keystage 2 pupils should know</p> <ul style="list-style-type: none">• how to use learning from science to help design and make products that work.• How to use learning from mathematics to help design and make products that work.• The materials have both functional properties and aesthetics quality.• materials can be combined and mixed to create more useful characteristics.• THah mechanical and electrical systems have an input process and output.• the correct technical vocabulary for the project they are undertaking. <p>People should know:</p> <ul style="list-style-type: none">• how mechanical create movement such as pneumatic systems.• how to make strong flexible structures such as shell structures.• single fabric shape can be used to make a 3D textiles product.	<ul style="list-style-type: none">- Make healthy eating choices from and understanding of a balanced diet.-Measure and weigh ingredients appropriately.-Work safely and hygienically. Follow instructions/recipes. Join and combine a range of ingredients to create a healthy dish. Begin to understand the food groups on the Eatwell Plate.
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<p>Year 4</p>	<p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing projects that are fit for purpose aimed at particular individuals or groups.</p> <p>Select from and use a wider range of tools and materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p>Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate.</p>	<p>-Select tools and techniques for making their product.</p> <p>-Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques.</p> <p>- Join and combine materials and component accurately in temporary and permanent ways.</p> <p>- Sew using a range of different stitches, weave and knit.</p> <p>-Measure, tape or pin, cut and join fabric with some accuracy.</p> <p>- Use simple graphical communication techniques.</p>	<p>Investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> - be able to disassemble and evaluate familiar products - are the materials used recyclable <p>Evaluate their ideas and products against their own design criteria</p> <ul style="list-style-type: none"> - how will they check if their design is successful? - carry out appropriate tests - start to evaluate their work by referring to their design criteria both during and at the end - evaluate in relation to appearance and functionality <p>Consider the views of others to improve their work</p> <ul style="list-style-type: none"> - take on constructive criticism and begin to incorporate their peers ideas, to improve their design <p>Identify some great designers and how their products have influenced the world</p> <ul style="list-style-type: none"> - who designed and made existing products - when were these products designed and made - how well the products achieve their purpose eg material, methods of construction 	<p>Students should know the simple working characteristics of material and components.</p> <p>Across key stage 2 pupils should know</p> <ul style="list-style-type: none"> • how to use learning from science to help design and make products that work. • How to use learning from mathematics to help design and make products that work. • The materials have both functional properties and aesthetics quality. • materials can be combined and mixed to create more useful characteristics. • THah mechanical and electrical systems have an input process and output. • the correct technical vocabulary for the project they are undertaking. <p>People should know:</p> <ul style="list-style-type: none"> • how mechanical create movement such as levers and linkages. • how simple electrical circuits and components can be used to create functional products. • How to program the computer to control their products. 	<p>Personal Hygiene</p> <p>Measure and weigh ingredients appropriately.</p> <p>Analyse the taste, texture, smell and appearance of a range of foods from different countries and cultures.</p> <p>-Work safely and hygienically.</p> <p>Understanding food waste and recycling.</p> <p>Health and safety in the kitchen</p>
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<p>Year 5</p>	<p>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</p> <p>Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate.</p>	<p>-Select tools and techniques for making their product. -Measure and mark out accurately. -Use skills in using different tools and equipment safely and accurately. - Cut and join with accuracy to ensure a good quality finish to their product.</p>	<p>Investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> - how much would the products cost to make - how innovative they are - how sustainable materials are <p>Evaluate their ideas and products against their own design criteria</p> <ul style="list-style-type: none"> - continuously check their design as they go along - use their own initiative to check if they need to improve and modify their work - evaluate the appearance and function against their own design criteria <p>Consider the views of others to improve their work</p> <ul style="list-style-type: none"> - begin to seek evaluation from others - begin to incorporate others ideas in to their own designs, to make it more functional <p>Identify some great designers and how their products have influenced the world</p> <ul style="list-style-type: none"> - start to critically evaluate the quality of designs - how well do the products meet the users needs and wants 	<p>Students should know the simple working characteristics of material and components.</p> <p>Across key stage 2 pupils should know</p> <ul style="list-style-type: none"> • how to use learning from science to help design and make products that work. • How to use learning from mathematics to help design and make products that work. • The materials have both functional properties and aesthetics quality. • materials can be combined and mixed to create more useful characteristics. • That mechanical and electrical systems have an input process and output. • the correct technical vocabulary for the project they are undertaking. <p>Pupils should know:</p> <ul style="list-style-type: none"> • how mechanical system such as cams or pulleys and gears create movements • how to program a computer to monitor changes in the environment and control their products. 	<p>Personal Hygiene .</p> <p>Knife skills</p> <p>explain the terms 'eating seasonally' and 'food miles' the benefits of seasonal vegetables.</p> <p>Join and combine a widening range of ingredients.</p> <p>Select and prepare foods for a particular purpose.</p> <p>Know where and how ingredients are grown and processed.</p> <p>Eat well plate.</p> <p>Health and safety in the kitchen</p>
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<p>Year 6</p>	<p><i>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p>Developing planning and communicating ideas: Investigate products/images to collect ideas and create own design criteria. Sketch and model alternative ideas. Develop one idea in depth. Combine modelling and drawing to refine ideas. Plan the sequence of work using a storyboard. Record ideas using annotated diagrams.</p> <p>Working with tools, equipment, materials and components to make quality products: Choose materials based on their functional properties and aesthetic qualities.</p>	<ul style="list-style-type: none"> -Select appropriate tools, materials, components and techniques. -Assemble components to make working models. -Use tools safely and accurately. -Construct products using permanent joining techniques. -Make modifications as they go along. -Pin, sew and stitch materials together to make a product. -Achieve a quality product. 	<p>Investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> - how much would the products cost to make - how innovative they are - how sustainable the end product is <p>Evaluate their ideas and products against their own design criteria</p> <ul style="list-style-type: none"> - evaluate a prototype of their design before making their final work - test and evaluate the final product - consider the use of the product when selecting materials - make a product which meets all the design criteria <p>Consider the views of others to improve their work</p> <ul style="list-style-type: none"> - seek evaluation from others - begin to incorporate others ideas in to their own designs, to make it more functional <p>Identify some great designers and how their products have influenced the world</p> <ul style="list-style-type: none"> - to critically evaluate the quality of designs - how well do the products meet the users needs and wants 	<p>Students should know the simple working characteristics of material and components.</p> <p>Across key stage 2 pupils should know</p> <ul style="list-style-type: none"> • how to use learning from science to help design and make products that work. • How to use learning from mathematics to help design and make products that work. • The materials have both functional properties and aesthetics quality. • materials can be combined and mixed to create more useful characteristics. • That mechanical and electrical systems have an input process and output. • the correct technical vocabulary for the project they are undertaking. <p>Pupils should know:</p> <ul style="list-style-type: none"> • how more complex electrical circuits and components can be used to create functional products. • how to reinforce and strengthen a 3D framework. • a 3D textile product can be made from a combination of fabric shapes. 	<p>Health and Safety in the kitchen</p> <p>Personal Hygiene</p> <p>Food Hygiene-the 4Cs</p> <p>Sensory testing</p> <p>The Eatwell Guide</p> <p>5-a-day message and government 8 guidelines</p> <p>A healthy balanced diet</p> <p>Weighing and Measuring</p> <p>Traffic-light labelling</p> <p>Knife skills (fruits and vegetables)</p> <p>Preparation and techniques</p> <p>Cooking methods</p> <p>Reflecting on own work and how to make improvements.</p> <p>Food groups</p> <p>Carbohydrates/ Protein / Fat/ Vitamins/ Minerals</p>
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