

Didsbury CE DT knowledge and skills progression

Year 1

Designing Understanding context, users and purpose Generating, developing, modelling and communicating ideas.	Making Planning Practical skills and techniques	Evaluating Own ideas and products Existing products Key events and individuals	Technical knowledge Making products work	Cooking and nutrition Where food comes from Food preparation, cooking and nutrition
<p>Know about the simple working characteristics of materials and Components</p> <p>know about the movement of simple mechanisms such as levers, sliders, wheels and axles</p> <p><i>know that a 3-D textiles product can be assembled from two identical fabric shapes</i></p>	<p>Know about the simple working characteristics of materials and Components</p> <p>know about the movement of simple mechanisms such as levers, sliders, wheels and axles</p> <p><i>know that a 3-D textiles product can be assembled from two identical fabric shapes</i></p>	<p>Evaluate their product by discussing how well it works in relation to the purpose</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Evaluate their product by asking questions about what they have made and how they have gone about it</p>	<p>Make their design using appropriate techniques With help measure, mark out, cut and shape a range of materials</p> <p>Use tools <i>eg scissors and a hole punch</i> safely</p> <p>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape</p> <p>Select and use appropriate fruit and vegetables, processes and tools</p> <p>Use basic food handling, hygienic practices and personal hygiene</p> <p>Use simple finishing techniques to improve the appearance of their product</p>	<p>Draw on their own experience to help generate ideas</p> <p>Suggest ideas and explain what they are going to do</p> <p>Identify a target group for what they intend to design and make</p> <p>Say how their products will work</p> <p>Model their ideas in card and paper (make a mock-up/ template)</p> <p>Develop their design ideas applying findings from their earlier research</p>

Didsbury CE DT knowledge and skills progression

Year 2

Designing Understanding context, users and purpose Generating, developing, modelling and communicating ideas.	Making Planning Practical skills and techniques	Evaluating Own ideas and products Existing products Key events and individuals	Technical knowledge Making products work	Cooking and nutrition Where food comes from Food preparation, cooking and nutrition
<p>Know how freestanding structures can be made stronger, stiffer and more stable</p> <p><i>Know that food ingredients should be combined according to their sensory characteristics use the correct technical vocabulary for the projects they are undertaking</i></p>	<p>Know how freestanding structures can be made stronger, stiffer and more stable</p> <p><i>Know that food ingredients should be combined according to their sensory characteristics use the correct technical vocabulary for the projects they are undertaking</i></p>	<p>Evaluate against their design criteria</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Talk about their ideas, saying what they like and dislike about them</p>	<p>Begin to select tools and materials; use vocab' to name and describe them</p> <p>Measure, cut and score with some accuracy</p> <p>Use hand tools safely and appropriately</p> <p>Assemble, join and combine materials in order to make a product</p> <p>Cut, shape and join fabric to make a simple garment.</p> <p>Use basic sewing techniques</p> <p>Follow safe procedures for food safety and hygiene</p> <p>Choose and use appropriate finishing techniques</p>	<p>Generate ideas by drawing on their own and knowledge of existing products</p> <p>Develop their design ideas through discussion, observation, drawing and modelling</p> <p>Say how they will make their products suitable for their intended users</p> <p>Identify a purpose for what they intend to design and make</p> <p>Identify simple design criteria</p> <p>Make simple drawings and label parts</p> <p>Use ICT to communicate ideas</p>

Didsbury CE DT knowledge and skills progression

Year 3

Designing Understanding context, users and purpose Generating, developing, modelling and communicating ideas.	Making Planning Practical skills and techniques	Evaluating Own ideas and products Existing products Key events and individuals	Technical knowledge Making products work	Cooking and nutrition Where food comes from Food preparation, cooking and nutrition
<p>Generate ideas for an item, considering its purpose and the user/s</p> <p>Identify a purpose and establish criteria for a successful product.</p> <p>Plan the order of their work before starting</p> <p>Explore, develop and communicate design proposals by modelling ideas</p> <p>Make drawings with labels when designing</p>	<p>Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy</p> <p>Work safely and accurately with a range of simple tools</p> <p>Think about their ideas as they make progress and be willing change things if this helps them improve their work</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Demonstrate hygienic food preparation and storage</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT</p>	<p>Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose</i></p> <p>Disassemble and evaluate familiar products</p> <p>Know about inventors, designers, engineers, chefs and manufactures who have developed ground-breaking products</p> <p>Evaluate who designed and made the products</p> <p>Discuss where products were designed and made</p>	<p>how to use learning from science and mathematics to help design and make products that work</p> <p>know that that materials have both functional properties and aesthetic qualities and <i>that materials can be combined and mixed to create more useful characteristics</i></p> <p>know that mechanical and electrical systems have an input, process and output</p> <p><i>To use the correct technical vocabulary for the projects they are undertaking</i></p> <p>Know how mechanical systems such as levers and linkages or pneumatic systems create movement can make strong, stiff shell structures</p> <p><i>that food ingredients can be fresh, pre-cooked and processed</i></p>	<p>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>know 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>know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p>know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate</p>

Didsbury CE DT knowledge and skills progression

Year 4

Designing Understanding context, users and purpose Generating, developing, modelling and communicating ideas.	Making Planning Practical skills and techniques	Evaluating Own ideas and products Existing products Key events and individuals	Technical knowledge Making products work	Cooking and nutrition Where food comes from Food preparation, cooking and nutrition
<p>Generate ideas, considering the purposes for which they are designing</p> <p>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>Evaluate products and identify criteria that can be used for their own designs</p>	<p>Select appropriate 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 components 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>Evaluate their work both during and at the end of the assignment</p> <p>Evaluate their products carrying out appropriate tests</p> <p>Know about inventors, designers, engineers, chefs and manufactures who have developed ground-breaking products</p> <p>Think about when products were designed and made</p> <p>Evaluate whether products can be recycled or reused</p>	<p>how to use learning from science and mathematics to help design and make products that work</p> <p>know that that materials have both functional properties and aesthetic qualities and <i>that materials can be combined and mixed to create more useful characteristics</i></p> <p>know that mechanical and electrical systems have an input, process and output</p> <p><i>To use the correct technical vocabulary for the projects they are undertaking</i></p> <p>Know how simple electrical circuits and components can be used to create functional products</p> <p>Know how to program a computer to control their products</p> <p><i>that a single fabric shape can be used to make a 3D textiles product</i></p>	<p>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>know 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>know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p>know that to be active and healthy, food and drink are needed to provide energy for the body</p>

Didsbury CE DT knowledge and skills progression

Year 5

Designing Understanding context, users and purpose Generating, developing, modelling and communicating ideas.	Making Planning Practical skills and techniques	Evaluating Own ideas and products Existing products Key events and individuals	Technical knowledge Making products work	Cooking and nutrition Where food comes from Food preparation, cooking and nutrition
<p>Generate ideas through brainstorming and identify a purpose for their product</p> <p>Draw up a specification for their design</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>Use results of investigations, information sources, including ICT when developing design ideas</p>	<p>Select appropriate materials, tools and techniques</p> <p>Measure and mark out accurately</p> <p>Use skills in using different tools and equipment safely and accurately</p> <p>Weigh and measure accurately (time, dry ingredients, liquids)</p> <p>Apply the rules for basic food hygiene and other safe practices <i>e.g. hazards relating to the use of ovens</i></p> <p>Cut and join with accuracy to ensure a good-quality finish to the product</p>	<p>Evaluate a product against the original design specification</p> <p>Evaluate it personally and seek evaluation from others</p> <p>Know about inventors, designers, engineers, chefs and manufactures who have developed ground-breaking products</p> <p>Evaluate how much products cost to make and how innovative products are</p>	<p>how to use learning from science and mathematics to help design and make products that work</p> <p>know that that materials have both functional properties and aesthetic qualities and <i>that materials can be combined and mixed to create more useful characteristics</i></p> <p>know that mechanical and electrical systems have an input, process and output</p> <p><i>To use the correct technical vocabulary for the projects they are undertaking</i></p> <p>Know how mechanical systems such as cams or pulleys or gears create movement</p> <p>Know how to reinforce and strengthen a 3D framework</p> <p><i>Know that a recipe can be adapted by adding or substituting one or more ingredients</i></p>	<p>know that seasons may affect the food available</p> <p>know 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>know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p><i>know that recipes can be adapted to change the appearance, taste, texture and aroma</i></p>

Didsbury CE DT knowledge and skills progression

Year 6

Designing Understanding context, users and purpose Generating, developing, modelling and communicating ideas.	Making Planning Practical skills and techniques	Evaluating Own ideas and products Existing products Key events and individuals	Technical knowledge Making products work	Cooking and nutrition Where food comes from Food preparation, cooking and nutrition
<p>Communicate their ideas through detailed labelled drawings</p> <p>Develop a design specification</p> <p>Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways</p> <p>Plan the order of their work, choosing appropriate materials, tools and techniques</p>	<p>Select appropriate tools, materials, components and techniques</p> <p>Assemble components make working models</p> <p>Use tools safely and accurately</p> <p>Construct products using permanent joining techniques</p> <p>Make modifications as they go along</p> <p>Pin, sew and stitch materials together create a product</p> <p>Achieve a quality product</p>	<p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests</p> <p>Record their evaluations using drawings with labels</p> <p>Evaluate against their original criteria and suggest ways that their product could be improved</p> <p>Know about inventors, designers, engineers, chefs and manufactures who have developed ground-breaking products</p> <p>Evaluate how sustainable the materials in products are and what impact products have beyond their intended purpose</p>	<p>how to use learning from science and mathematics to help design and make products that work</p> <p>know that that materials have both functional properties and aesthetic qualities and <i>that materials can be combined and mixed to create more useful characteristics</i></p> <p>know that mechanical and electrical systems have an input, process and output</p> <p><i>To use the correct technical vocabulary for the projects they are undertaking</i></p> <p>Know how more complex electrical circuits and components can be used to create functional Products know how to program a computer to monitor changes in the environment and control their products</p> <p><i>know that a 3D textiles product can be made from a combination of fabric shapes</i></p>	<p>know how food is processed into ingredients that can be eaten or used in cooking know 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>know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p>know that different food and drink contain different substances - nutrients, water and fibre - that are needed for health</p>