



SKILLS PROGRESSION MAP FOR ___Design and technology___(SUBJECT)

MAP OUT THE DEVELOPMENT OF SPECIFIC SKILLS AS THEY OCCUR ACROSS THE SCHOOL

SKILL	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Design	<p>Construct with a range of materials. Encourage to think about and discuss what they want to make. Discuss problems and how they might be solved as they arise. Reflect on how they have achieved their aims.</p>	<p>Plan and comment what they are going to design/ make. Think about the purpose of the model they are going to make. Follow and comment on design criteria during the process. Talk about what they like. With support draw, copy, write or colour in the plan. To recall the process later.</p>	<p>Plan, comment and talk about the design. Listen to support. Design purposeful, functional, appealing products for themselves and other users based on design criteria. Think about What and how they are going to do their model. Communicate their ideas through talking and drawing. For moving pictures think about own ideas and make mock ups. Beginning to annotate their drawings/ mock ups. Share their ideas and listen to others.</p>	<p>Use research and develop design criteria to inform their design. Verbally explain their plan, linking to techniques and their research. Use Dt vocabulary when talking about their designs and when annotating their plans. Making appealing products that are fit for purpose, aimed at particular individuals or groups. Willingness to alter or restart their project. Gather information about the needs and wants of particular individuals and groups.</p>	<p>Use research and develop design criteria to inform their design. Explain their ideas for design in some detail, in verbally and in writing and linking tools, techniques and materials using DT vocabulary. Share and clarify ideas through discussion with teachers and peers. Model their ideas using prototypes and pattern pieces. Use annotated sketches, cross-sectional drawings and diagrams. Use computer-aided design</p>	<p>Use research and develop your design. Use your previous knowledge of materials and tools and seek to explore different materials. Comment how you could change your design to fit particular group of individuals. Give peer to peer support and ideas to better their design. Use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Carry out surveys, interviews and questionnaires.</p>	<p>Use their previous research knowledge of design, techniques, materials and tools. Making drawings and sketches explaining their plans and choices. Finding out about preferences, needs, wants of the particular individual and/or group. Question about purpose, function and limitations for some groups and individuals by gathering information. Recognise when their products have to fulfil conflicting requirements Develop their own design criteria and use these to inform their ideas</p>

<p>Make</p>	<p>Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.</p>	<p>Construction with materials given to them.</p> <p>Use children's scissors for cutting and with help for shaping and using rulers to measure.</p> <p>With support use equipment/tools for joining and finishing. Model their ideas in card and paper.</p> <p>Make their design using appropriate techniques.</p> <p>Assemble, join and combine materials and components together using a variety of methods e.g. glues or masking tape</p> <p>Follow simple advice from adults to improve their work.</p> <p>Evaluate their product by talking about what they have made and how they have gone about it. They can refer to a photo or a drawing when talking about their work.</p>	<p>Construct creatively with materials given to them. Work creatively and with some control and a range of materials.</p> <p>Use children scissors for cutting and shaping, use rulers to measure.</p> <p>Use equipment/tools for joining and finishing. Model their ideas in card and paper.</p> <p>Make their design using appropriate techniques. With help measure, mark out, cut and shape a range of materials</p> <p>Assemble, join and combine materials and components together using a variety of methods e.g. glues or masking tape</p> <p>Follow simple advice from adults to improve their work.</p> <p>Evaluate their product by discussing with how well it works in relation to the purpose.</p>	<p>Select from and use a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks [e.g. cutting, shaping, joining and finishing], accurately.</p> <p>Explain their choice of tools and equipment in relation to the skills and techniques they will be using. Select materials and components suitable for the task. Make and discuss annotated sketches and diagrams. Understand how key events and individuals in design and technology have helped shape the world.</p>	<p>Explain their choice of materials and components according to functional properties and aesthetic qualities.</p> <p>Order the main stages of making- Produce detailed lists of tools, equipment and materials that they need.</p> <p>Follow procedures for safety. Use a wider range of materials and components, including construction materials and kits, textiles, mechanical components and electrical components.</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 apply a range of finishing techniques,</p>	<p>Explain their choice of tools and equipment in relation to the skills and techniques they will be using.</p> <p>Select materials and components suitable for the task. Follow procedures for safety. Use a wider range of materials and components, including construction materials and kits, textiles, mechanical components and electrical components.</p> <p>Make accurate drawings of given measures.</p> <p>Link their own and others designs to their function and purpose.</p> <p>Willingness to alter or restart their designs.</p> <p>Refer to their research when</p>	<p>Order the main stages of making Produce detailed lists of tools, equipment and materials that they need</p> <p>Follow procedures for safety. Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components.</p> <p>Accurately measure to nearest mm, mark out, cut and shape materials and components.</p> <p>Accurately assemble, join and combine materials/ components.</p> <p>Accurately apply a range of finishing techniques, including those from art and design. Use techniques that involve a number of steps. Demonstrate resourcefulness,</p>
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<p>Technical Knowledge</p>	<p>Learn to use different techniques for joining materials, such as how to use adhesive tape and different sorts of glue. Use a range of materials and tools and teach children to use them with care and precision.</p>	<p>Understand about the simple working characteristics of materials and components. Understand about the movement of simple mechanisms including levers, sliders.</p> <p>Know the correct technical vocabulary for the projects they are undertaking.</p> <p>Understand how freestanding structures can be made stronger, stiffer and more stable.</p>	<p>Understand about the simple working characteristics of materials and components. Understand about the movement of simple mechanisms including leavers, sliders, wheels and axles.</p> <p>Know and use the correct technical vocabulary for the projects they are undertaking.</p> <p>Understand how freestanding structures can be made stronger, stiffer and more stable.</p> <p>.</p> <p>.</p>	<p>Understand how to strengthen, stiffen and reinforce more complex structures</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Understand and use electrical systems in their products [e.g. series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>Apply their understanding of computing to program, monitor and control their products</p> <p>Understand how to use learning from science and maths to help design and make products that work</p> <p>Know that materials have both functional properties and aesthetic qualities</p>	<p>Understand and know that materials can be combined and mixed to create more useful characteristics.</p> <p>Know that mechanical and electrical systems have an input, process and output.</p> <p>Use the correct technical vocabulary for the projects they are undertaking. Understand how to use learning from science and maths to help design and make products that work</p> <p>Understand how levers and linkages or pneumatic systems create movement. Understand how simple electrical circuits and components can be used to create functional products. Understand how to program a</p>	<p>Understand and know that which materials can be combined and mixed to create more useful characteristics.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Understand and use electrical systems in their products [e.g. series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>Apply their understanding of computing to program, monitor and control their products</p>	<p>Fully understand and know that materials can be combined and mixed to create more useful characteristics.</p> <p>Know that mechanical and electrical systems have an input, process and output. Use the correct technical vocabulary for the projects they are undertaking</p> <p>Understand how cams, pulleys and gears create movement. Understand how more complex electrical circuits and components can be used to create functional products. Understand how to use learning from science and maths to help design and make products that work</p> <p>Understand how to program a computer to monitor changes in the environment /</p>
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					computer to control their products. Know how to make strong, stiff shell structures Know that a single fabric shape can be used to make a 3D textiles product Know that food ingredients can be fresh, pre-cooked and processed	Understand how to use learning from science and maths to help design and make products that work Know that materials have both functional properties and aesthetic qualities	control their products Know how to reinforce/strengthen a 3D framework Know that a 3D textiles product can be made from a combination of fabric shapes Know that a recipe can be adapted a by adding or substituting one or more ingredients
Vocabulary	Use everyday terms in Design and technology Choose First/then Paper/card Glue stick Scissors Spreader Hole punch Spilt pin Treasury tag Sticky tape Dispenser Masking tape Label Drawing Joining Painting	Use common words and phrases in Design and technology. Product Design Technology First then Second then And so on. First/ Last Next/ before/ after Drawing Painting Joining Improve Effect Stronger, stiffer, stable Leaver/ slider Underneath Position Direction Up/down Ingredients Savoury Sweet Hygiene Safety	Use a wide range of everyday terms in Design and technology Process Construction Model Object Style Later/earlier Depth Scale Mark out Measure Improve Mock up Annotate Compare Axels Wheels Leavers/sliders Symmetrical Left/right Stich Sew/ knit Seasoning	Use some specialist vocabulary in discussions. Accurate Purpose organise gears, pulleys, levers and linkages. Alter/restart Functional Technique Mechanical Construct Prototype mock up Weave Fabric Aesthetic Functional Detail Creative Symmetrical Left/right	Use specialist vocabulary often appropriately Structure Characteristic Aesthetic series Circuit Program Develop Audience prototypes pattern annotated sketches cross-sectional drawings diagrams former /later trend impact cause consequence shape language	Use specialist vocabulary appropriately Prior Subsequent Pulley Cam Lever Gear Context Exceptional Diagonal Rotation Angle shape language creative	Start to apply vocabulary in in different ways. (cross curricular) Simultaneous Cube Redial Rotation Cam Authentic Creative Combine Resourceful functional

<p>Cooking and Nutrition</p>	<p>Experience in mixing ingredients.</p> <p>Experience of tasting/ smelling various ingredients. E.g. icing sugar mix, decorations.</p> <p>Understand about cleanliness when handling food.</p> <p>Follow given hygiene routine, wash hands prior to activity.</p>	<p>Understand that food ingredients should be combined according to their sensory characteristics.</p> <p>Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.</p> <p>Select and use appropriate fruit and vegetables, processes and tools.</p> <p>Use basic food handling, hygiene practices and personal hygiene. Use techniques such as cutting with little support. Name and sort foods into the five groups of the 'eat well' plate. Know that everyone should eat at least five portions of fruit and vegetables every day.</p> <p>Follow and remember to use basic food handling, hygienic practices and personal hygiene.</p>	<p>Fully understands which food ingredients should be combined according to their sensory characteristics.</p> <p>Knows where food comes from.</p> <p>Use appropriate equipment to weigh and measure ingredients. Follow a given recipe to create a dish.</p> <p>Follow safe procedures for food safety and hygiene.</p> <p>Use techniques such as cutting. Name and sort foods into the five groups of the 'eat well' plate. Know that everyone should eat at least five portions of fruit and vegetables every day</p> <p>Describe the ingredients used when making a dish or a cake.</p> <p>Talk about the taste and</p>	<p>Understand and apply the principles of a healthy and varied diet.</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Talking about the ingredients they are going to use.</p> <p>Describe how food ingredients come together.</p> <p>Accuracy when measuring ingredients. To follow a simple recipe.</p> <p>Understand how food is processed into ingredients that can be eaten or used in cooking.</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p> <p>Know that food is grown (such as</p>	<p>Fully understand and apply the principles of a healthy and varied diet.</p> <p>Bring a creative element to their food product being designed.</p> <p>Can predict what is likely to happen when mixing ingredients. (e.g. mixing egg and flour) Measure using grams. Follow a recipe.</p> <p>Know which season various foods are available for harvesting.</p> <p>Understand how food is processed into ingredients that can be eaten or used in cooking.</p> <p>Understand without the need of reminders about working healthily and safely.</p> <p>Recognises safe practises and can identify hazards</p>	<p>Confidence about working practices and, safety and healthy diet.</p> <p>Make suggestions that bring an element of creativity to their preparation.</p> <p>Organise their working space and by collecting the ingredients.</p> <p>Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p> <p>Weigh and measure accurately; timings, dry ingredients and liquids.</p> <p>Getting confided to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>	<p>Confidence about working practices and, safety and healthy diet.</p> <p>Able to make a list of ingredients they would need to make a specific meal or food product.</p> <p>They know how to go about collecting the ingredients, even at the supermarket or a local shop. They are very accurate with their weighing and measuring of ingredients and checking before adding to a mixture. Explain how ingredients should be stored and give reasons.</p> <p>Work within a budget to create a meal.</p> <p>Understand difference between sweet and savoury dish.</p> <p>Use a range of techniques such as peeling, chopping, slicing, grating, mixing,</p>
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