



Design and Technology Skills Overview

| To design, make, evaluate and improve: | | | | | | | |
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| Aspects | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| <p>Design</p> <p>Giving them a purpose/function</p> | <p>3&4 Year olds PSE – Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. (DM)</p> <p>3&4 Year Olds EAD - Explore different materials freely, in order to develop their ideas about how to use them and what to make. (DM)</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>3&4 Year Olds UTW – Explore how things work. (DM)</p> | <p>I can create a simple design for my product.</p> <p>I can use pictures and words to describe what I want to do.</p> | <p>I can design useful, pleasing products for myself and other users based on a design brief.</p> <p>I can generate, develop model and communicate my ideas through talking, drawing, templates, mock ups and IT.</p> | <p>I can use my knowledge of existing products to design my own functional product.</p> <p>I can create designs using annotated sketches cross-sectional diagrams and simple computer programmes.</p> | <p>I can use my knowledge of existing products to design a functional and appealing product for a particular purpose and audience</p> <p>I can create designs using exploded diagrams</p> | <p>I can use my research into existing products and my market research to inform the design of my own innovative product.</p> <p>I can create prototypes to show my ideas.</p> | <p>I can use research I have done into famous designers and inventors to inform my designs.</p> <p>I can generate, develop, model and communicate my ideas through discussion annotated sketches cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.</p> |
| <p>Make</p> | <p>3&4 Year Olds EAD – Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. (DM)</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects. – e.g.</p> | <p>I can select from and use a range of tools and perform practical tasks e.g. cutting, shaping, joining and finishing.</p> <p>I can use a range of simple tools to cut, join and combine materials and components safely.</p> | <p>I can choose tools I would like to use to make and select materials based on my knowledge of their properties.</p> <p>I can safely measure, mark out, cut and shape materials and components using a range of tools.</p> | <p>I can safely measure, mark out, cut assemble and join with some accuracy.</p> <p>I can make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.</p> | <p>I can techniques which require more accuracy to cut, shape, join and finish my work e.g. Cutting internal shapes, slots.</p> <p>I can use my knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them</p> | <p>I can make careful and precise measurements so that joins, holes and openings are in exactly the right place.</p> <p>I can produce step by step plans to guide my making demonstrating that I can apply my knowledge of different materials, tools and techniques.</p> | <p>I can apply my knowledge of materials and techniques to refine and rework my product to improve its functional properties and aesthetic qualities.</p> <p>I can use my technical knowledge and accurate skills to problem solve during the making process.</p> |

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| <p>self portraits/drawing s</p> <p>3&4 Year Olds PD – Choose the right resources to carry out their own plan. (DM)</p> <p>Use one-handed tools and equipment, for example, making snips in paper with scissors. (DM)</p> <p>Reception EAD – *Explore, use and refine a variety of artistic effects to express their ideas and feelings.(DM) *Create collaboratively, sharing ideas, resources and skills. (DM) -e.g. Making boat or bridge fairy tales</p> <p>Reception PD - Develop their small motor skills so that they can use a range of tools competently, safely and confidently. (DM)</p> <p>.</p> <p>PD – Fine Motor Skills ELG: Use a range of small tools, including scissors, paintbrushes and cutlery.</p> | | | | | | |
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| Evaluating | <p>Reception EAD – Return to and build on their previous learning, refining ideas and developing their ability to represent them. (DM)</p> <p>EAD Creating with Materials ELG: Share their creations, explaining the process they have used. E.g. junk modelling of a dinosaurs</p> | I can ask simple questions about existing products and those that I have made. | I can evaluate and assess existing products and those that I have made using a design criteria. | I can investigate and analyse existing products and those I have made, considering a wide range of factors. | I can consider how existing products and my own finished products might be improved and how well they meet the needs of the intended user. | I can make detailed evaluations about existing products and my own considering the views of others to improve my work. | I can use my knowledge of famous designs to further explain the effectiveness of existing products and products I have made. |
| | EYFS | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 |
| Technical knowledge | <p>EAD - Creating with Materials ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> | <p>I can build structures, exploring how they can be made stringer, stiffer and more stable.</p> <p>I can use wheels and axles in a product.</p> | <p>I can investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.</p> <p>I can explore and use mechanisms such as leavers, sliders, wheels and axles in products.</p> | <p>I can strengthen frames with diagonal struts.</p> <p>I can understand how mechanical systems such as levers and linkages or pneumatic systems create movement.</p> | <p>I can apply techniques I have learnt to strengthen structures and explore my own ideas.</p> <p>I can understand and use electrical systems in my products.</p> | <p>I can build more complex 3D structures and apply my knowledge of strengthening techniques to make them stronger or more stable.</p> <p>I can understand how to use more complex mechanical and electrical systems.</p> | <p>I can use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately.</p> <p>I can apply my understanding of computing to program, monitor and control my products.</p> |
| COOKING AND NUTRITION | <p>3&4 Year Olds PD Make healthy choices about food, drink, activity and toothbrushing.(DM)</p> <p>Reception PD - Know and talk about the different factors that support their overall health and wellbeing: - regular physical activity - healthy eating</p> | <p>I can use simple tools to cut with help to prepare food safely.</p> <p>I can show my awareness of the importance of basic food handling, hygienic practices and personal hygiene.</p> <p>To assemble or cook ingredients without a heat source.</p> <p>I can talk about what</p> | <p>I can use a wider range of cookery techniques to prepare food safely and hygienically e.g cutting, peeling and grating.</p> <p>I can prepare simple dishes, without using a heat source.</p> <p>I can begin to measure or weigh using measuring cups or electronic scales with support.</p> | <p>I can use a wider variety of ingredients and techniques/utensils to prepare and combine ingredients safely and hygienically .e.g. peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>I can follow a basic verbal/written instructions given by an</p> | <p>I can prepare ingredients hygienically using appropriate utensils.</p> <p>I can read and follow a basic recipe that involves several processes, skills and techniques.</p> <p>I can assemble and cook ingredients, controlling the temperature of the oven or hob, if cooking under strict adult</p> | <p>I can start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing spreading, kneading and baking.</p> <p>I can understand the importance of correct storage and handling of ingredients (knowledge of micro-organisms).</p> | <p>I can understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing spreading, kneading and baking.</p> <p>I can measure accurately and calculate ratios of ingredients to scale up or down from recipe.</p> <p>I can create and adapt recipes,</p> |

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| | <p>- toothbrushing - sensible amounts of 'screen time' - having a good sleep routine (DM)</p> <p>PSE ELG Managing Self: Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p> | <p>they can eat at home and begin to discuss what healthy foods are.</p> <p>I can say where food comes from giving examples of food that is plant/grown or animals.</p> <p><i>I can begin to name and sort foods into the five groups in The eatwell plate.</i> <i>I can tell you that everyone should eat at least 5 portions of fruit and vegetables every day.</i></p> | <p>I can say which food ingredients should be combined according to their sensory characteristics.</p> <p>I can understand that food has to be farmed, grown elsewhere or caught.</p> <p>I can understand the need for a variety of food in a diet.</p> | <p>adult.</p> <p>I know how to store different food hygienically.</p> <p>I can measure with greater accuracy using a weighing scales.</p> <p>I can talk about the different food groups, describing what they do tfor our body and name food from each group. E.g. as in the Eatwell Plate.</p> | <p>supervision.</p> <p>I know that food ingredients can be fresh, precooked or processed.</p> <p>I can understand seasonality and the advantages of eating seasonal and locally produced food.</p> <p>I can understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy.</p> | <p>I can demonstrate a range of baking and cooking techniques.</p> <p>I can weigh and measure accurately (time, dry ingredients, and liquids) Applying the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens.</p> <p>I 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>I can understand the main food groups and the different nutrients that are important for health.</p> <p>I can understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/ tasty to eat.</p> <p>I can select appropriate ingredients and use a wide range of techniques to combine them.</p> | <p>including ingredients, methods, techniques, cooking times and temperatures to change the appearance, taste, texture and aroma. (As appropriate)</p> <p>I know how to confidently plan a series of healthy meals based on the principles of a healthy and varied diet.</p> <p>I can research, plan and prepare and cook a variety of predominantly savoury dishes applying knowledge of ingredients and technical skills.</p> <p>I can use information on food labels to make healthy balanced choices.</p> |
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