|  | Wortham Primary School <br> EYFS Skills and Knowledge Progression Subject area: Design and Technology |
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| Age 3 to 4 | - Explore different materials freely, to develop their ideas about how to use them and what to make. <br> - Develop their own ideas and then decide which materials to use to express them. <br> - Join different materials and explore different textures. <br> - Create closed shapes with continuous lines and begin to use these shapes to represent objects. <br> - Draw with increasing complexity and detail, such as representing a face with a circle and including details. <br> - Use drawing to represent ideas like movement or loud noises. <br> - Respond to what they have heard, expressing their thoughts and feelings. |
| Reception | - Return to and build on their previous learning, refining ideas and developing their ability to represent them. <br> - Create collaboratively, sharing ideas, resources and skills. |
| ELG | Expressive Arts and Design - Creating with Materials <br> - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function <br> - Share their creations, explaining the process they have used; |


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| Skills and Knowledge | Year 1 | Year 230 | Year $4 \times$ Year 5 | Year 6 |
| Designing and Planning | Begin to draw on own experiences and research to help generate ideas. <br> Begin to explore how products have been created. What they arefor and how they work. <br> Begin to develop their ideas though talk and drawings including what tools and materials they will use. <br> Talk about their design,how they will make it and who it is for. <br> With support, begin to decide a suitable orderto complete tasks | With growing confidence generate ideas for aproduct based on theirs and others experiences, research and suggestions. <br> Understand how well products have been designed and made. Identify the materials used and consider their sustainability (recycle) <br> Develop their ideas through discussion,observation, drawing and modelling. <br> Make clear designs with labels whendesigning. <br> Begin to take into consideration their target group, including purpose and audience for their product. <br> Refer to the success criteria and consider howthis will be achieved. <br> When planning, consider how to order the stages of making the product. <br> Be able to explain their choices of materials, tools, function and aesthetics of their product. | Generate and develop their ideas through discussion, research, sketches and cross- sectional diagrams. <br> Start to understand how much products cost tomake and how sustainable they are. <br> Understand the impact that products havebeyond their intended purpose. <br> Carry out research to identify the needs and preferences of their target audience <br> Create class success / design criteria based on knowledge and research to inform innovative, functional and appealing products that are fitfor purpose. <br> Consider the design criteria, their own evaluation and view of others to improve theirdesign. <br> Make clear, labelled drawings and showdifferent views of the product. <br> Be able to consider alternative methods. | Generate, develop and communicate their ideas through discussion, research,annotated sketches, cross-sectional / prototypes. <br> Formulate a step-by-step plan to use as aguide, including details on the tools, equipment and materials needed. <br> Suggest alternative methods if original plan fails. <br> In the designing and planning stage link to maths and science. |


|  |  |  |  | Clearly, explain their design and choices linkedto their research. Explain the process and know the tools, materials and processes they need to use and be able to explain why, linkingto the function and aesthetics of their product. |  | Clearly, explain their design and choices linked to their research and exploration. Explain the process and know the tools, materials and processes they need to use and be able to explain why. Be able to identify and discuss the strengths and areas for development in their and plan. <br> Know how much products cost to make, how long theytake to make and their sustainability. Take this into consideration when designing their products. |
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|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Making | Begin to use tools, with support if needed. <br> Make their design by using appropriate techniques safely. | Begin to select tools, materials andtechniques. <br> Explain their choice of tools and equipment inrelation to the desired purpose, skills and techniques they will be using. |  | With increasing confidence, select appropriatematerials, tools and techniques. <br> Select from and use a wider range of materialsand components, according to their functional properties and aesthetic qualities also. |  | Confidently self - select and demonstrate the correct and safe use of appropriate tools, materials, |



|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Evaluating | When looking at existing products explain what they like and dislike about them and why, identify what the product is, what it ismade from and who / what they have been made for. <br> Start to evaluate their product by discussing what works well in relation to the design criteria. <br> Begin to evaluate their products by identifying strengths and areas that could be improved. | Look a they lik reasons Evalua <br> Evalua design particu the cha | oducts and explain what products giving relevant where they mightbe used. s' products against the theyhave identified that could be improved and ke. | Evaluate existing products; where they were designed and made, consider the components, the cost and how sustainable / recyclable the product is. Be able to disassemble a product towork out how it was made and how it works. <br> Evaluate the quality of the design, manufactureand fitness for purpose of their products and those made by their peers, using the design/success criteria. <br> Know about key inventors and designers related to the products they are making. |  | Evaluate existing products by also considering its wide impact. <br> Critically evaluate the quality of the design, manufacture and fitness for purpose of their products and those made by their peers. <br> Know and discuss key inventors, designers, engineers and manufactures who have developed groundbreaking products and evaluate the impact these have had on the world. |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Technical Knowledge | Know how structures, including free standing structures, can be made stronger, stiffer and more stable using | Explore mechanisms, including levers, sliders, wheels and axels and pneumatic systems and understand they create and allow movement. <br> Create and use these mechanisms in products |  | Understand that mechanical systems have aninput, process and output. <br> Understand and use mechanical systems suchas levers, linkages, cams, pulleys and gears to |  | Know electrical circuits and components can be used to create functional products. |


|  | techniques such as rolling, folding and layering. |  |  | create movement. <br> Know how to make strong, structures andstrengthen and reinforce a 3D structure. |  | Know how to program a computerto monitor the changes and controltheir products. |
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|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Food \& Nutrition | Begin to understand that all food comes from plants or animals. <br> Identify the five food groups from 'The Eat Well Plate' and understand we need to have a healthy balanced diet. <br> Know that everyone should eat at least fiveportions of fruit and vegetables every day. <br> Know how to preparefood safely and hygienically. Use techniques such as cutting, peeling and grating. <br> Choose appropriate ingredients for a product and begin to explain their choices. | Begin wheat and ca Word w <br> Know eaten <br> Unders and bal 'The E provide <br> Know th needed <br> Prepare <br> Use a culting, <br> Begin accurac | is grown (e.g. tomatoes, (pigs,chickens and cattle) world (UK, Europe and <br> into ingredientsthat can be <br> t is made up froma variety and drink as shown in the what each food type <br> active food and drink are nergy. <br> and hygienically. <br> ch as spreading,kneading, <br> ingredients withmore liquids) | Explain knowled their und to be he <br> Begin to different that are <br> To know <br> An unde whichis Underst <br> To know vegetaria <br> Begin to other. <br> Demons cook a v heat sou <br> Confiden cook food | be created using their Plate' and drawing upon food groups provide us <br> ent food and drink contain s,water, fibre and minerals <br> and savoury foods. <br> ons may affect the food <br> rent diets <br> erances <br> in foodscomplement each <br> hygienically prepare and savoury dishes using a <br> hniques toprepare and |  |



