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|  |  **Design Technology in EYFS** St Anne's Catholic Primary School |
|  | **3 and 4 year olds** | **Reception** | **Early Learning Goals** |
| **Expressive Arts & Design** | Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, in order 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. Create closed shapes with continuous lines, and begin to use these shapes to represent objects. | Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills. | **Creating with Materials** Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. Make use of props and materials when role playing characters in narratives and stories. |
| **Physical** | Use large-muscle movements to wave flags and streamers, paint and make marks. Choose the right resources to carry out their own plan. Use one-handed tools and equipment, for example, making snips in paper with scissors | Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. | **Fine Motor Skills**Hold a pencil effectively in preparation for fluent writing - using the tripod grip in almost all cases. Use a range of small tools, including scissors, paintbrushes and cutlery. Begin to show accuracy and care when drawing. |
| **PSED** | 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. |  |  |
| **Understanding the world** | Explore how things work. |  |  |
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|  |  **KS1 Mechanisms: Sliders & Levers** St Anne's Catholic Primary School |
|  | **Essential 1** | **Essential 2** | **Knowledge 3** |
|  | Create simple designs for a product.Use pictures and words to describe what he/she wants to do. Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. Use a range of simple tools to cut, join and combine materials and components safely. Ask simple questions about existing products and those that he/she has made. Explore and use mechanisms e.g. levers, sliders in his/her products. | Design purposeful, functional, appealing products for himself/herself and other users based on design criteria. Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock‐ups and, where appropriate, information and communication technology. Choose appropriate tools, equipment, techniques and materials from a wide range. Safely measure, mark out, cut and shape materials and components using a range of tools. Evaluate and assess existing products and those that he/she has made using a design criteria. Explore and use mechanisms e.g. levers, sliders in his/her products. | Work in a range of relevant contexts:Eg. school, gardens, playgrounds and the local community |

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|  **LKS2 Mechanical Systems: Levers & Linkages** St Anne's Catholic Primary School |
| **Essential 1** | **Essential 2** | **Knowledge 3** |
| Use knowledge of existing products to design his/her own functional product. Create designs using annotated sketches, cross‐ sectional diagrams and simple computer programmes. Safely measure, mark out, cut, assemble and join with some accuracy. Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them. Investigate and analyse existing products and those he/she has made, considering a wide range of factors. Understand how mechanical systems such as levers and linkages create movement | Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience. Create designs using exploded diagrams. Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks. Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them. Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user. Understand how mechanical systems such as levers and linkages create movement | Work in a range of relevant contexts:Eg. school, leisure and culture. |

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|  **UKS2 Electrical Systems: Monitoring & Control** St Anne's Catholic Primary School |
| **Essential 1** | **Essential 2** | **Knowledge 3** |
| Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product. Create prototypes to show his/her ideas. Make careful and precise measurements so that joins, holes and openings are in exactly the right place. Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques. Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work. Understand how to use more complex mechanical and electrical systems. | Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products. Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross‐sectional and exploded diagrams, prototypes, pattern pieces and computer‐aided design. Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities Use technical knowledge accurate skills to problem solve during the making process. Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she have made. Apply his/her understanding of computing to program, monitor and control his/her product | Work in a range of relevant contexts:Eg. enterprise, industry and the wider environment. |

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