# Design & Technology – KS2

At Our Lady & St Benedict's we believe that by providing an 'Arts Rich Curriculum' we can contribute to the quality of our children's lives, both within and beyond school, preparing children to take part in the development of tomorrow's rapidly changing world. We understand that the purpose of Design & Technology education is to give pupils the skills, concepts and knowledge necessary for them to express their responses to ideas and experiences in a visual or tactile form. Pupils should be taught to use a range of materials creatively to design and make products. Through this subject, children are given the opportunity to expand and experiment their own creative ideas, whilst learning new skills and reflecting on technology in today's society. Pupils develop the ability to act as responsible designers and makers, working ethically, using finite materials carefully and working safely.

| | Year 3 | Year 4 | Year 5 | Year 6 |
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| **Design Concepts** | Prove that a design meets a set criteria.<br>Design a product and make sure that it looks attractive.<br>Choose a material for both its suitability and its appearance. | Use ideas from other people when designing.<br>Produce a plan and explain it.<br>Persevere and adapt work when original ideas do not work.<br>Improve original design. | Come up with a range of ideas after collecting information from different sources.<br>Produce a detailed, step-by-step plan.<br>Explain how a product will appeal to a specific audience. | Use market research to inform plans and ideas.<br>Follow and refine original plans.<br>Justify planning in a convincing way.<br>Show that culture and society is considered in plans and designs. |
| **Making Concepts** | Follow a step-by-step plan, choosing the right equipment and materials.<br>Select the most appropriate tools and techniques for a given task. | Measure accurately.<br>Uses a range of tools and equipment competently.<br>Make a product using simple electronic components.<br>Present a product in an interesting way. | Use a range of tools and equipment competently.<br>Make a product using complex electronic components. | Make a product using electronic and mechanical systems.<br>Make a product using gears and pulleys. |

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| | Make a product which using linkage and lever components. | | | To make quality products with increasing accuracy and independence. |
| **Technical Knowledge Concepts** *(textiles & Mechanical Systems)* | Use linkages and levers.<br>To join fabrics using a range of stitches with increasing independence.<br>To add decoration to their work using buttons, beads, sequins. | Links scientific knowledge by using lights, switches or buzzers.<br>Uses electrical systems to enhance the quality of the product.<br>To complete a range of sewing stitches with increased accuracy. | Uses a range of circuits, (short, series, parallel)<br>Links scientific knowledge to design an electronic product.<br>To cut out sewing pattern pieces.<br>To demonstrate an awareness of seam allowance.<br>To create a blanket stitch. | Uses gears and pulleys.<br>Uses a range of electronic components.<br>To pin and tack fabric pieces together.<br>To join fabrics by over sewing, back stitch, blanket stitch. |
| **Food Technology** | Describe how food ingredients come together.<br>Talk about which food is healthy and which food is not. | Know how to be both hygienic and safe when using food.<br>Bring a creative element to the food product being designed. | Be both hygienic and safe in the kitchen.<br>Know which season various foods are available for harvesting.<br>Understand the difference between a savoury and sweet dish. | Explain how food ingredients should be stored and give reasons.<br>Work within a budget to create a meal. |