

**BILTON GRANGE SCHOOL: Sequence of Skills and Learning** **Substantive Knowledge** **Disciplinary Knowledge**

**D&T**

EYFS	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
<b>Design</b>							
<ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	<p>Generate ideas and simple designs for a specific criteria.</p> <p>To be able to explain what they want to do through discussion and labelled drawing/designs.</p> <p>Begin to explore products and talk about some of their features.</p>	<p>Design purposeful and appealing products for themselves and others, based on a simple design criteria.</p> <p>Generate, develop and model ideas through a range of ways including templates and mock-ups.</p> <p>Explore and discuss a range of products and their features.</p>	<p>Develop design criteria, based on research, to design appealing products.</p> <p>Generate, model and communicate ideas through discussion and annotated sketches and where appropriate, ICT.</p>	<p>Develop design criteria, based on research, to design functional, appealing products aimed at individuals or groups</p> <p>Generate, model and communicate ideas through discussion and annotated sketches and where appropriate, ICT.</p>	<p>Come up with a range of ideas based on basic research.</p> <p>Produce a detailed step-by-step plan.</p> <p>Identify the needs and wants of particular individuals or groups.</p> <p>Use prototypes, pattern pieces and computer- aided design to communicate their ideas.</p>	<p>Produce detailed designs, which have developed through a range of ideas, carry out research, surveys, interviews, questionnaires and web-based resources.</p> <p>Identify the needs, wants, preferences and values of particular individuals or groups when planning and designing and using this to justify their planning.</p>	<p>Use research and exploration to understand users needs.</p> <p>Identify and solve design problems.</p> <p>Develop and communicate design ideas including detailed plans and oral and digital presentations and computer-based tools.</p>

Make							
<ul style="list-style-type: none"> <li>Make use of props and materials when role playing characters in narratives and stories.</li> </ul>	<p>Use simple tools and equipment safely to perform practical tasks.</p> <p>Select materials and components according to their properties.</p> <p>Talk about their own work in more detail and how they made it.</p>	<p>Use a range of tools and equipment to perform practical tasks such as cutting, shaping, joining and finishing.</p> <p>Select from and use a range of materials and components, including construction, textiles and ingredients.</p> <p>Evaluate their products against a simple design criteria.</p>	<p>Select from a range of tools and equipment to perform practical tasks with increasing accuracy</p> <p>Select from and use a wider range of materials and components according to their properties.</p>	<p>Select from a wide range of tools and materials to ensure a high quality finish.</p> <p>Select from and use a wider range of materials and components according to their properties. Order the main stages of making.</p>	<p>Select from a wide range of tools and materials based on their aesthetic qualities.</p> <p>Produce lists of tools, equipment and materials that they need.</p> <p>Formulate plans as a guide to making.</p> <p>Make a prototype before making a final version</p>	<p>Work with a range of tools, materials and equipment and show an understanding of their functional properties and aesthetic qualities.</p> <p>Produce appropriate lists of tools, equipment and materials that they need explaining why a specific tool is best for a specific action.</p> <p>Formulate step-by-step plans as a guide to making.</p>	<p>Select from and use specialist tools and techniques and a more complex range of materials.</p>
Evaluate							
<ul style="list-style-type: none"> <li>Share their creations, explaining the process they have used.</li> </ul>			<p>Explore and analyse a range of existing products identify their key features.</p> <p>Evaluate their ideas and products against design criteria.</p>	<p>Explore and analyse and range of existing products and consider the views of others to evaluate their work.</p>	<p>Investigate and analyse a range of existing products.</p> <p>Consider the views of others to evaluate their work and make improvements based on this.</p>	<p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to</p>	<p>Test, evaluate and refine their ideas and products against a specification.</p>

				Discuss how design and technology is used in everyday products we have in the home.	Look at how design and technology has shaped our world over time.	improve their work.  Explain how key events and individuals in Design and Technology have helped to shape the world.	
--	--	--	--	---	---	--	--

**Technical knowledge**

	<p>Explore simple mechanisms such as sliders and levers.</p> <p>Build structures, exploring how they can be made stronger and stiffer.</p>	<p>Explore and use mechanisms in their products such as levers, sliders, wheels and axles.</p> <p>Build structures knowing how they can be made stronger and more stable.</p>	<p>Apply understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Understand and use basic mechanical and electrical systems in their products.</p>	<p>Apply various skills to complex structures they plan and make e.g. measuring accurately.</p> <p>Understand how to add components to their mechanical and electrical products e.g. buzzers, switches.</p>	<p>Apply various skills to complex structures they plan and make e.g. hiding joints.</p> <p>Understand how to add components to their mechanical and electrical products e.g. hydraulics and pneumatics, using ICT where appropriate.</p>	<p>Apply their skills and understanding of reinforced materials to more complex structures.</p> <p>Understand and use mechanical systems (gears, pulleys, cams and linkages) and electrical systems (circuits, bulbs, buzzers and motors) in their products.</p> <p>Apply this to computing to programmes to control and monitor their products.</p>	<p>Understand and apply advanced mechanical and electrical systems in their products.</p>
--	--	---	---	---	---	--	---

## Cooking

	<p>Understand all food comes from plants or animals and which foods are healthy/ unhealthy.</p> <p>Begin to prepare simple dishes hygienically without a heat source.</p>	<p>Know food has to be farmed, grown or caught. Name and sort food into the 5 groups (Eatwell plate)</p> <p>Know we should eat 5 portions of fruit and veg every day. Use techniques such as cutting, peeling and grating when preparing dishes.</p>	<p>Prepare and cook a variety of predominantly savory dishes safely and hygienically including, where appropriate, the use of a heat source.</p> <p>Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p>	<p>Know that food is grown, reared and caught in the UK, Europe and wider world. That a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell plate.</p> <p>Know that to be active and healthy, food and drink are needed to provide energy for the body</p>	<p>Plan, prepare and cook a variety of predominantly savory dishes safely and hygienically, using a heat source.</p> <p>Demonstrate a good knowledge of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p>	<p>explain how food ingredients should be stored and give reasons</p> <p>work within a budget to create a meal based on seasonal foods available for harvesting. understand the difference between a savoury and sweet dish</p>	<p>Understand and apply the principles of nutrition and health.</p>
--	---	--	--	---	---	---	---