Design & Technology – Intent, Implementation, Impact

		ASPIRE	
Intent		At Tweeddale we aim for the children to be fully **engaged** in developing their knowledge and skills in a range of design and technological processes. We ensure that the lessons taught are **safe** and teach children to understand how to keep themselves safe. We will allow pupils to develop and apply a repertoire of knowledge and practical life skills. The pupils will be encouraged to be **ambitious** through curiosity and creativity to solve problems in the real world. Pupils will be inspired to **persevere** with the planning, developing, testing and refining process for a particular purpose and the needs of a range of users. They will learn how to take risks, become innovative, resourceful and reflective. Children will learn to critique, evaluate and test their ideas and products as well as the work of others. Our DT education will allow pupils to incorporate other subject knowledge and disciplines including history, science, maths, English, art etc. We endeavour to **inspire** designers of the future.	
Implementation	**What**	**KS1**	**KS2**
		Design ▪ D1 - design purposeful, functional, appealing products for themselves and other users based on design criteria ▪ D2 - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Make ▪ M1 - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] ▪ M2 - select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate ▪ E1 - explore and evaluate a range of existing products ▪ E2 - evaluate their ideas and products against design criteria Technical knowledge ▪ T1 - build structures, exploring how they can be made stronger, stiffer and more stable ▪ T2 - explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Design ▪ D1 - use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups ▪ D2 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make ▪ M1 - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately ▪ M2 - select from and use a wider range of materials and component including construction materials, textiles and ingredients, according t their functional properties and aesthetic qualities Evaluate ▪ E1 - investigate and analyse a range of existing products ▪ E2 - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

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		Cooking and Nutrition ▪ C1 - use the basic principles of a healthy and varied diet to prepare dishes ▪ C2 - understand where food comes from	▪ E3 - understand how key events and individuals in design and technology have helped shape the world Technical knowledge ▪ T1 - apply their understanding of how to strengthen, stiffen and reinforce more complex structures ▪ T2 - understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] ▪ T3 - understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] ▪ T4 - apply their understanding of computing to program, monitor and control their products. Cooking and Nutrition ▪ C1 - understand and apply the principles of a healthy and varied diet ▪ C2 - prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques ▪ C3 - understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
	How	Develop practical life skills. Challenge their curiosity and creativity as they learn to solve problems in the real world. They will be inspired to plan, develop, test, and be able to refine their own ideas for a particular purpose and the needs for those around them. Learn how to take risks, become innovative, resourceful and reflective. Incorporate other subject knowledge and disciplines. Use specialist expertise from within and beyond our community to share their passion, and our history to enhance our learning. We celebrate our learning with design exhibits. Quality teaching of Design Technology each half term. Cross-curricular links where possible. Inviting to school and visiting local designers, engineers and chefs. <u>EYFS</u> In EYFS children use a range of construction materials and tools to develop their creativity and express their own ideas. Key skills are also taught through small group directed activities.	

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<table>
<tr><td></td><td colspan="9">KS1 & 2
At Tweeddale Primary School, DT learning is taught through quality teaching in a series of DT days that are spread out throughout the year. The DT days are designed to enable the students to research different designs, learn new skills, apply them in a real-life situation, explain the production process and evaluate their end result. Each DT day is linked to the children's topic learning for that term. For each DT day, the children complete a DT Day project book to record their learning.

In addition, each class takes part in Enterprise Week each December to work collaboratively to design, make and sell items to other children in the school.

At special events such as Careers Day, we are also able to invite parents in to share their experience of working with design and technology in their jobs.</td></tr>
<tr><td></td><td>Key Knowledge/Skills</td><td>To develop practical life skills.</td><td>To learn how to solve problems in the real world.</td><td>To understand the importance of planning, developing, testing, and refining their own ideas for a particular purpose, before making it.</td><td>To be familiar with the process of DT, using Focused Practical Tasks (FPT).</td><td>To use a variety of tools and understand the right tool for the task.</td><td>To take risks, become innovative, resourceful and reflective.</td><td>To incorporate other subject knowledge and disciplines.</td><td>How can DT prepare and inspire people for adult life and future jobs?</td><td>To understand safety rules including, food hygiene. - washing hands - food technology - cleaning up afterwards</td></tr>
<tr><td>Assessment</td><td colspan="3">Quizzing</td><td colspan="3">Self- and Peer-assessment at the end of each DT day</td><td colspan="3">Pupil conferencing</td></tr>
<tr><td>Impact</td><td colspan="3">Quality of Education</td><td colspan="3">Behaviour and Attitudes</td><td colspan="3">Personal Development</td></tr>
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- To incorporate other subject knowledge and disciplines.</td><td colspan="3">- Pupils' curiosity and creativity will be challenged as they learn to solve problems in the real world.</td><td colspan="3">- Pupils will develop practical life skills.
- To learn how to take risks, become innovative, resourceful and reflective.</td></tr>
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