

Design Technology Rationale

National Curriculum Aims for Design Technology

The national curriculum for art and design aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook

National Curriculum Purpose for Design Technology

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Intent	Implementation	Impact: to be reviewed at the end of each academic year
At Follifoot and Spofforth schools we believe that children should learn and master techniques thereby enabling them to create their own design technology work. These techniques will include	In Follifoot and Spofforth Schools teachers plan sequences of learning that challenge and build upon prior skills. Developing and deepening understanding of art techniques and the opportunities to put them into practice are key to our curriculum. Pupils will be given the understanding of how to improve their techniques within a lesson . Progression of these skills is key to our curriculum and the sequence of teaching shows this.	July 2020 There has been some positive impact with D&T projects linked to other curriculum areas for examples model lighthouses built linked with geography including electrical circuits. Children enjoy this subject and speak positively of it especially the making element. A clearer and stronger distinction with clear units not reliant on links to other subjects is needed. It is important it is valued as a subject in its own right and not reliant on a convenient link to another area. A clearer long term plans needs developing along with a clear progression of knowledge and skills.

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The study of design technology will help our children to express their ideas in another form. The pupils will gain a comprehensive range of techniques which are sequentially built upon, to enable them to show their ideas in a wide range of materials and styles. Children develop and build their knowledge in five key areas

Cooking and Nutrition
Mechanisms
Structures
Textiles
Electrical Systems

Knowledge development also focuses on the four key elements of; designing, making, evaluating, and technical knowledge giving every child the opportunity to experiment and to hone their knowledge and skills whilst encouraging creativity.

Children will discuss, give preferences, find similarities and differences between both their own work and that of famous designers, designs and constructions. They will continue to use perspective and judgement and they will use critical thinking throughout. Speaking and listening skills are a key element to design and technology.

Knowledge in Design Technology Substantive knowledge concerns the key facts, concepts, principles and explanatory frameworks in a subject. Disciplinary Knowledge needed in order to think, process and understand with the subject.

The knowledge gained by children is outlined in our progression document. It has been planned and sequenced logically taking into account our mixed age classes.

Enquiry in Design Technology

Children will explore the work of different designs, constructions and designers and compare it. They will give preferences and develop the vocabulary and understanding to discuss pieces using technical language. They will reflect on the work of others and their own.

Creativity in Design Technology

Creativity and knowledge will work symbiotically to enable the children to express themselves in a variety of media. Their work will also explore and be influenced by the style of other designers. Pupils will be encouraged and enabled to show themes and feelings through their work and to be able to discuss this.

Assessment in Design Technology

Tracking children's progress throughout their school life is vital in order to establish their acquisition of knowledge and skills. At the Federation of Follifoot & Spofforth, learning always starts with the children's prior knowledge and any misconceptions they may have. Class teachers decide upon the most appropriate age related way of obtaining the children's prior knowledge. Units of work are then personalised to the children.

Misconceptions that arise throughout the unit are identified and addressed appropriately by the teacher. As a Federation we are currently trialling exploring and trialling approaches to assessing children's recall of their learning to assess how effectively knowledge and skills have been embedded and mastered.

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