Broom Leys Primary School

Design Technology

"Design and Technology provides pupils with unique opportunities to learn and apply creative, practical and thinking skills to real, everyday problems. These are vital developmental experiences for everyone, supporting better choice making by individuals – as citizens, entrepreneurs and decision makers. And let's not forget fun…for many being creative is a great source of satisfaction, fulfilment and happiness."
Wayne Hemingway, Designer

Intent

All children at Broom Leys are inventors and creative problem solvers who challenge the norm and don't give up. We aim to provide opportunities for children to develop an understanding of how things work in the real world, designing and making purposeful products. Our curriculum teaches children how they can effectively evaluate their work, both during the designing process and once the product has been completed. Children will be confident in using a range of technology, tools and materials.

Our Design Technology curriculum has been designed to ensure that it is inspiring, rigorous, and practical. We want our children to use creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We intend for all children to acquire appropriate subject knowledge, skills and understanding as set out in the National Curriculum. It is our aim to create strong cross curricular links with other subjects such as Mathematics, Science, Computing and Art.

In our Design and Technology curriculum, children will:

- **Design** - develop the creative, technical and practical expertise needed to perform everyday tasks confidently.
- **Make** - build and apply a repertoire of knowledge, understanding and skills in order to design and make high quality products for a range of purposes.
- **Evaluate** - critique, evaluate and test their ideas and products and the work of others.
- **Use technical knowledge** of how to strengthen, stiffen and reinforce more complex structures, understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages). understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) and apply their understanding of computing to program, monitor and control their products.
- **Cooking and Nutrition** - understand and apply the principles of nutrition and learn how to cook.

EYFS

Through the area of Expressive Arts and Design, children are encouraged to explore different media (for example, paint, chalks, pencils, paper, card, lollipop sticks, glue, Sellotape etc.) and how these can be combined to create different effects. They will also develop a range of skills and techniques, including experimenting with colour, design, texture, form and function. Children are given daily access to a range of creative opportunities and enjoy our carefully planned and well-resourced creative areas both indoors and outside. Children create on both small and large scales and our outdoor environment and provision supports this well. Children are encouraged to develop their communication and language skills through talking about their creations and sharing these with others to build confidence and raise self-esteem.

Implementation

Broom Leys Design Technology whole school curriculum map:

	Unit 1		Unit 2		Unit 3
EYFS	**All about me** Structures: homes	**I wonder what's special?** Animal enclosures	**I wonder how we'll move?** Junk modelling: vehicles	**I wonder how things change?** Cooking and nutrition	**London Calling! I wonder what's out there?** Creating props to enhance narrative (making things move using split pins)
Year 1	**Cooking and nutrition** Preparing fruit and vegetables		**Structures** Baby bear's char		**Mechanisms** Sliders and Levers
Year 2	**Textiles** Templates and joining techniques		**Cooking and nutrition** A Healthy and Varied diet		**Mechanisms** Wheels and Axles
Year 3	**Cooking and nutrition** A balanced diet Eating Seasonally		**Structures** Shell Structures		**Textiles** 2D shape to 3D product
Year 4	**Mechanisms** Levers and Linkages		**Electrical systems** simple circuits and switches		**Cooking and nutrition** A Healthy and Varied diet
Year 5	**Textiles** Weaving		**Electrical systems** Monitoring and Control		**Mechanical Systems** Cams
Year 6	**Structures** Frame Structures		**Textiles** Combining different fabric shapes		**Mechanical Systems** Pulleys / gears

- At Broom Leys, Design and Technology is taught in every year group. Each year group contains 3 units which are spaced throughout the year and has a main focus of either textiles, structures, mechanisms, electrical systems or cooking and nutrition.
- Every child from Year 1 to Year 6 has a design technology book. We give the child ownership of their book in order to foster their sense of creativity. Children use their books to develop their initial designs, to showcase their finished product and to evaluate their work.
- Throughout the Broom Leys journey, every child is given the opportunity to learn the skills of each aspect of design and technology national curriculum.
- Cross-curricular links are promoted to allow all children to deepen their understanding across the curriculum, including the use of technology, and artworks from year group specific historical, geographical and scientific contexts.
- Teachers follow a clear progression of skills which ensures all children are challenged in line with their year group expectations and are given the opportunity to build on their prior knowledge.
- Opportunities to reflect and develop include self and peer-assessment, which are planned into each unit of study in KS1 and KS2.
- Effective CPD and standardisation opportunities are available to staff to ensure high levels of confidence and knowledge are maintained.

- To support teaching, staff access a range of high-quality resources which have been carefully soured, as well as comprehensive planning produced by the Design and Technology Lead in collaboration with teachers.

Impact

It is our aim that the impact of our carefully crafted curriculum will lead to outstanding progress over time across key stages relative to each childs individual starting points and their progression of skills. Our vision is for our ambitious Design and Technology curriculum is to equip the children at Broom Leys to be enthusiastic learners. Children will ultimately know more, remember more and understand more about Design Technology, demonstrating this knowledge when using tools or skills in other areas of the curriculum and in opportunities out of school. Children will have clear enjoyment and confidence in design and technology that they will then apply to other areas of the curriculum.
We strive to evidence how much our children enjoy and engage with our Design and Technology curriculum in a range of ways, including pupil voice, their final product and work in individual Design and Technology Books. We ensure that all children, including those who are achieving well, as well as those who need additional support, are identified, and additional provision and strategies are planned in and discussed with class teachers to ensure successful outcomes for all. As designers, children will develop skills and attributes they can use beyond school and into adulthood.