

Lancaster Lane Statement for Design Technology

The teaching and learning of design technology provides opportunities for children to become problem solvers by developing a range of research, analysis and practical skills. They learn to assess situations, make decisions and develop resilience as they continuously seek to improve their own work throughout each project. Children experience the use of both modern and traditional tools such as sewing in textiles, sawing for construction, and computers for computer aided design. In an ever-changing world, there is always the need to solve problems and come up with new ideas, and we aim to show pupils how they can work together to overcome such issues, through *experimentation and risk-taking*.

In Reception, four aspects from EYFS Development Matters incorporates areas of Design Technology:

1. *Technology* - Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.
2. *Exploring and Using Media and Materials* - Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
3. *Being Imaginative* - Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology and art.
4. *Moving and Handling* - Children handle equipment and tools effectively.

Children are given opportunities to explore these objectives through a combination of discrete teaching and access to a rich environment during continuous provision.

The following objectives relate to learning in key stage 1 (KS1):

Design - Design purposeful, functional, appealing products for themselves and other users based on design criteria. Develop and communicate their ideas through talking, drawing and mock-ups.

Make - Select and use a range of tools to perform practical tasks such as cutting and joining. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate - Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.

Technical knowledge - Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms such as levers and wheels with axles in their products.

Across key stage 2 (KS2) the following objectives are focused on:

Design - 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. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make - Select from and use a wider range of tools and equipment to perform practical tasks, accurately. Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate - Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge - Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products. Understand and use electrical systems in their products. Apply their understanding of computing to program, monitor and control their products.

Leyland is an industrial town with a rich history of vehicle manufactures. We organise visits to the Leyland Motor Museum and gain from the wealth of knowledge available about vehicles that have been made locally for hundreds of years, as well as in the present day. We make links with history when learning about vehicles and the chassis system of the moving mechanism. We make use of visitors where possible to come and discuss local industries and their own knowledge of specific topics such as textiles and electronics. We aim to make links with the local high school with secondary pupils acting as experts in areas such as textiles, being able to share their GCSE level projects with our KS2 children.

We aim for children to see their ability to solve problems in real life situations in an ever changing world. Having quite a new town - Buckshaw Village - grow locally to our school, provides opportunities to see changes in a variety of industries and make links with geography as children study the local area and learn about decisions people have made to improve people's lives.

Design technology is assessed by class teachers following a taught unit; each year group focuses on at least two units per year. The teacher will ensure all objectives (both

knowledge and skills based) are taught over the course of both units and an end of year assessment will also be gained. The Design Technology Subject Leader receives this information from class teachers (end of unit assessments and end of year) to ascertain how Design Technology is being delivered. This helps to identify strengths and any areas for development for the subject which can be tackled appropriately.

To be reviewed September 2022.