

Lostock Hall Community Primary School

Design Technology Policy

The purpose of the Design and Technology Policy

This policy reflects the values and philosophy of Lostock Hall Community Primary School in relation to the teaching and learning of Design and Technology. It sets out a framework within which teachers and teaching assistants can operate and gives guidance on planning, teaching and assessment.

Aims:

Design and Technology is essentially a practical subject that allows children to think imaginatively and creatively to become innovative problem solvers. Our aim is to provide children with a rich and enjoyable experience of Design and Technology, in which they can acquire and develop their own designing, making and evaluating skills. As a school, we would like to ensure children are fully equipped with a range of life skills including resilience so they have the ability to trial, test and change their products a number of times without hesitation. We would like to equip children with appropriate life skills to help them solve modern day problems such as a thorough knowledge of food and nutrition to allow them to become healthy young people, a familiarity with new and emerging technologies to allow them to take on new and exciting jobs in an increasingly technological world and an awareness of sustainability practices so they are able to become eco-aware citizens and innovators.

The aims of Design and Technology are:

- 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
- to enable pupils to select appropriate materials, tools and techniques to make quality products whilst following safe procedures
- 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

Principles of Teaching and Learning

Design and Technology will engage the children in a broad range of designing and making activities which involve a variety of methods of communication, e.g. speaking, designing, drawing, assembling, making, writing and using computing, programming and modifying technology. These activities can be differentiated through careful planning and the selection of resources which are appropriate for different ages and abilities. Access may be ensured through Learning Assistant support. Writing frames can be modified easily to support or stretch children. Projects are taught in blocks which allows for more effective learning in which teachers can focus on Design and Technology skills. Teachers will ensure that they have a clear idea of the skills, knowledge and understanding to be taught in each unit of work by following the key skills as outlined on our website. Units of work have been selected and planned to ensure a balance of materials, skills, knowledge and understanding throughout each Key Stage.

In the EYFS, much of the Design and Technology learning will be through activities set up in the provision where children can develop in all seven areas of learning in relation to the Early Learning Goals. Children will be encouraged to communicate together, develop their physical fine motor skills, show resilience and perseverance and use their understanding of the world to solve problems. The children have access to a wide range of modelling, construction, collage, painting and drawing activities using appropriate tools and materials. The children are encouraged to develop their own creative ideas.

In Key Stage One, children will take part in two food projects, a mechanical project, two construction projects and a textile unit. In Key Stage Two, children will take part in a variety of projects including food, construction, mechanics, electronics, programming, control and modification.

Units of work are planned to include researching and reviewing products, learning new skills, designing and making products and evaluating their work. All children should have a breadth and balance of experience. Care should be taken to ensure activities do not have a gender bias. Use of multicultural stimuli wherever possible enhances and enriches design possibilities. A range of designers should be discussed across each year group to provide aspiration and inspiration for young innovators.

Time Allocation

Subject teaching is planned so that Design and Technology is taught for 36 hours at Key Stage One and Key Stage Two during the year. This consists of three projects throughout the year; generally, one per term.

Relationship to other Subjects

Design and Technology is taught as a subject specific activity through a combination of whole class teaching, group work and individual work. Cross-curricular links are identified and made when appropriate to provide meaningful context.

English: Our Design and Technology curriculum contributes to the teaching English by providing valuable opportunities to reinforce prior learning. Discussion, drama and role play are important ways for pupils to develop an understanding that people have different views about Design and Technology. The evaluation of products requires pupils to articulate their ideas and to compare and contrast their views with those of other people. Through discussion, pupils learn how to justify their own views and clarify their design ideas

Maths: In Design and Technology pupils learn how to measure and weigh accurately and use equipment correctly. They generate nets of shapes in order to create packaging. Design and Technology presents our pupils with many opportunities to apply their mathematical knowledge and understanding through real-life problem solving.

Science: There are strong links between our Design and Technology and Science topics (for example, Food and Nutrition, Electricity, Forces and Structures).

Computing: Computing enhances the teaching of Design and Technology as children in Y2 and KS2 are taught to use Computer Aided Design to design their products. Children in Upper Key Stage Two will also be shown how to include elements of programming, control and modification in their products.

PSHE: Design and Technology contributes to the teaching of PSHE, encouraging pupils to develop a sense of responsibility in following safe procedures when making products, including food hygiene.

In addition, pupils learn about health and nutrition and in Upper Key Stage 2 will consider diverse users of their products such as vegans, vegetarians or people with other dietary requirements. Pupils will also be encouraged to work sustainably when designing their products. Their work also encourages them to set targets and meet deadlines and develop perseverance and resilience while working towards their goal.

Evidence, Assessment, Reporting and Recording

The children's Design and Technology booklets are a good source of evidence of their work. Their final products are recorded on the online system Seesaw. On-going, formative assessment can be made through class work, looking at their booklets and assessing their final products both during and at the end of each unit. These formative assessments will inform their summative assessments. Areas of success and next steps are shared with the children. Children will be assessed as WT – working towards, WIN – working in line, WA –working above age related expectations twice a year. An annual report to parents details progress and achievements made in Design and Technology.

Health and Safety

Teachers ensure that all learning takes place within a safe environment with specific reference to use of equipment, tools and materials. Pupils are taught how to use equipment, tools and materials safely and responsibly in line with school risk assessments. Pupils are taught how to follow correct procedures for food safety and hygiene.

Resources

Our school has a wide range of resources to support the teaching of Design and Technology across the school. The resources are kept in the Design and Technology store cupboard. The resources are restocked by the subject coordinator and new resources can be requested and ordered throughout the year.

Enrichment

We are fortunate enough to have developed a wide range of enrichment activities linked to the Design and Technology curriculum. Our Forest School activities allow children to solve problems in open-ended ways which provides them with opportunities to become innovative. They learn additional life skills such as using a range of tools and tying knots. Children access the Forest School for three half terms during their time at Lostock Hall CPS. In addition, we have themed weeks such as Life Skills Week which allows children to engage with external visitors such as chefs and cooks and STEAM week; which provides children with the opportunity to think about their future career and engage with new technologies or visitors from the engineering and construction sector. We offer a range of clubs throughout the year. Key Stage One are given the opportunity to join an engineering club and Key Stage Two are invited to a sewing club.

Equal Opportunities

It is the responsibility of all the teachers to ensure that all pupils, irrespective of gender, ability (including gifted and talented), ethnicity and social circumstance, have access to the curriculum and make the greatest progress possible. Gifted and Talented pupils in KS2 are identified by staff and are encouraged to join the Arts Council where they can get involved in further extra-curricular activities.

Special Educational Needs

All pupils will have access to a broad, balanced curriculum, which includes Design and Technology, and have the opportunity to make the greatest progress possible. In particular Design and Technology offers the opportunity for children to achieve in a practical subject, as they are encouraged to communicate in different ways. The tasks are open-ended and allow all children to succeed at their level. Children can record their achievements and evaluations in a variety of ways such as through their DT booklet or by taking photos on Seesaw and recording their evaluations verbally using the record feature. Teaching Assistants are on hand to support children who require assistance with this.