

MANOR ROAD PRIMARY SCHOOL



**DESIGN & TECHNOLOGY
POLICY**

October 2024





Manor Road Primary School Design and Technology Policy

This policy reflects the school values and philosophy in relation to the teaching and learning of Design and Technology. It sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment.

This document is intended for all teaching staff, school governors and parents.

Purpose of Design Technology

"Design and Technology is an inspiring, rigorous and practical subject. Using creativity and imagination, children 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."

At Manor Road Primary School children learn to produce practical solutions to real problems. Children develop technical understanding and making skills, learn about design methods and investigate their environment and the materials around them.

In all pupils, we aim to:

- 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

These aims are consistent with our school philosophy, the six principles of D.T. (user, purpose, functionality, design decisions, innovation and authenticity) and take account of the LA Curriculum Policy and National Curriculum Guidance.

Curriculum and School Organisation

The school uses a variety of teaching and learning styles in Design and Technology lessons. The principal aim is to develop children's knowledge, skills and understanding in Design and

Technology. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products, and then evaluating them. We do this through a mixture of whole-class teaching and individual or group activities. Within lessons, we give children the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect. Children critically evaluate existing products, their own work and that of others. They have the opportunity to use a wide range of materials and resources, including IT.

In all classes there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting common tasks that are open-ended and can have a variety of results;
- setting tasks of increasing difficulty where not all children complete all tasks;
- providing a range of challenges through the provision of different resources;
- using additional adults to support the work of individual children or small groups.

Subject Planning and Scheme of Work

In KS1 and 2, D.T is planned as one unit per term and is taught either as a block or throughout a half term. These units cover the different areas of D.T. in each Key Stage (mechanisms, structures & textiles) with food technology included each year (see long term plan).

Focused skills are also taught as discrete elements where appropriate, normally to reinforce or teach skills that children will be required to apply in forthcoming projects. Wherever possible, projects are linked to learning in science so knowledge can be applied.

To encourage learning through practical application, collaborative work and discussion, work is recorded in floor books. This also enables the children to see the stages of the design process from beginning to end.

The Foundation Stage

We encourage the development of skills, knowledge and understanding that help reception children make sense of their world as an integral part of the school's work. The development of the children's knowledge and understanding of the world is set out in the Early Learning Goals. This learning forms the foundations for later work in Design and Technology. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control.

Children learn through a range of experiences and will be encouraged to explore, observe, solve problems, think critically, make decisions and talk about why they have made their decisions and make the most out of their learning opportunities.

Learning experiences will include:

- Constructing – learning to construct with a purpose in mind
- Structures and joints – learning about structures and joining techniques
- Using a range of tools – planning and adapting initial ideas to make them better

- Cooking techniques – stirring, mixing, pouring and blending ingredients during cookery activities
- Exploration – dismantling things and learning about how everyday things work
- Discussion – opportunities to discuss reasons that make activities safe or unsafe.

We encourage children to use skills that they have learnt in their self-initiated product making and to record their experiences by drawing, writing and making models.

Inclusion & Equal Opportunities

At our school, we teach Design and Technology to all children, whatever their ability and individual needs. Design and Technology implements the school curriculum policy of providing a broad and balanced education to all children. Through our Design and Technology teaching, we provide learning opportunities that enable all pupils to make good progress. We take all reasonable steps to meet the needs of those pupils with special educational needs, disabilities, special gifts and talents and those learning English as an additional language.

We look at a range of factors (classroom organisation, teaching materials, teaching style and differentiation) so that we can take some additional or different action to enable the child to learn more effectively.

It is the responsibility of all teachers to ensure that all pupils, irrespective of gender, ability, including gifted pupils, ethnicity and social circumstance, have access to the curriculum and make the greatest progress possible.

Assessment

Assessment is used to inform future planning and to provide information about individuals throughout their time in this school.

Assessment techniques will ensure that teachers assess the on-going design process and not just the finished products or outcomes.

These techniques should include:

- teachers' observation of pupils' skills, their application of understanding and their engagement
- teacher – pupil discussion and teacher questioning
- pupils' drawings, notes, models, products and comments
- pupils' on-going analysis and evaluation of their achievements

Work in Design and Technology may be assessed through judgements of recorded work but a large proportion of assessment is involved with practical application and language development involving discussion, description and explanation skills. Evidence may be seen in the class floor books and through 3-D models and photographs of children's work. The progression of skills document is used to inform assessment criteria.

When reviewing the children's progress in Design and Technology, teachers must consider children's:

- knowledge and understanding of materials and components
- understanding of mechanisms and IT control
- ability to use materials and equipment safely
- ability to develop, plan, evaluate and adapt and communicate design ideas
- interest and motivation in designing and making
- resilience and ability to reflect and adapt
- ability to appreciate and produce items of quality that meet its intended purpose

Record Keeping and Reporting

Records of pupils' achievements are kept on the Foundation Subject Record to:

- plan pupils' future learning
- report progress to parents
- maintain a written record of pupils' learning
- fulfil legal requirements

Subject Leader Role

Where appropriate, to:

- review and contribute to teacher planning
- prepare and develop policy and scheme of work with staff
- prepare a subject development plan
- plan and lead staff meetings
- provide consultancy, advice, skills
- in-class teaching support
- specifying and ordering resources in consultation with staff
- monitoring and maintaining resources
- monitoring learning in Design and Technology

Resources and Accommodation

Our school has a wide range of resources to support the teaching of Design and Technology across the school. Materials for supporting teaching are distributed to staff when appropriate and also stored centrally in the DT cupboard and trays. It is the class teacher's responsibility ensure the equipment is used safely by the children and to inform the subject leader of specific requests for resources.

Children are encouraged to source and bring in their own materials from home. This helps provide a home/school link to learning.

Health and Safety

(See additional guidance document)

Food-hygiene and Safety Issues

At Manor Road Primary School, we do not have a Health and Safety Policy specifically for the teaching of Design and Technology. Teachers teach the safe use of tools and equipment and insist on good practice prior to starting a task. However, safety issues do arise when teaching this subject. These include:

- The use of electrical equipment such as glue guns
- The handling of food stuffs
- The use of cooking appliances, including ovens and hobs
- Contact with sharp objects including wood, nails, needles, saws etc.
- Awareness of personal safety

It is the duty of all staff to:

- Recognise and assess the hazards and risks to themselves and others when working with food and other materials.
- Take action to control these risks and hazards.
- Be familiar with the contents of the Health and Safety Policy in general.

Teachers should be aware of the following:

- Children must not use cooking appliances unless under direct supervision from a responsible adult. The portable ovens may be used in an isolated area at the teacher's discretion.
- Saws and other sharp objects (nails, needles etc) must be used under direct supervision. Saws should be used only with the wooden bench protectors. The teacher will make a judgment on the undertaking of activities involving sharp and/or potentially dangerous equipment depending on the age/ability of the children in his/her class. Some activities may be undertaken by an adult or in a small group or one to one situation as appropriate.
- Perishable food stuff must be stored sensibly and refrigerated if necessary. Care must be taken to ensure food is not used after the given best before date.
- Teachers and adult support staff must oversee that cupboards, table tops, cooker etc. are clean and in working order.
- Children must wash their hands before and after any contact with food and other potentially harmful substances.
- Teachers must take into account possible food allergies and should be aware of the location of any medication for the allergy.

Evaluation

In time allocated, the subject leader will review evidence of the quality of teaching and learning across the school. Such evidence should take into account:

- pupils' achievements
- coverage of programmes of study

- analysis of teacher planning
- discussions with pupils
- staff development
- classroom observation
- external inspection/advice

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