MANOR PARK INFANT SCHOOL & NURSERY

Learning Together, Success Forever

Whole School Policy for Design and Technology

Reviewed: September 2024

Next review: September 2025

Signed _____ (Chair of Governors)

Signed _____ (Head teacher)

Intent

1. Our rationale for teaching Design and Technology

Design and technology teaching and learning prepares pupils to participate in tomorrow's rapidly changing world. Children learn to produce practical solutions to real problems, with the ability to reflect on and evaluate design. Design and technology in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through creative thinking and problem-solving. Design and technology is also a collaborative activity where ideas and suggestions are shared and investigated together. Through practical activities and team work, children experience and learn how to work together have mutual respect for one another and value social cohesion.

We believe that a broad and balanced design and technology education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. Our aims in teaching design and technology include:

- Preparing our children for life in an increasingly technological and scientific world.
- Fostering concern about, and active care for, our environment.
- Helping our children acquire a growing understanding of ideas.
- Helping develop and extend our children's technological concept of their world.
- Developing our children's understanding of the international and collaborative nature of design and technology.

Attitudes

- Encouraging the development of positive attitudes to design and technology.
- Building on our children's natural curiosity and developing a problem solving approach.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Building our children's self-confidence to enable them to work independently.
- Developing our children's social skills to work cooperatively with others.
- Providing our children with an enjoyable experience of design and technology, so that they will develop a deep and lasting interest and may be motivated to study design and technology further.

Skills

- Giving our children an understanding of the iterative design process.
- Helping our children to acquire practical design and technological skills.
- Developing the skills of design technology:
  - *Designing:* Understanding contexts, users and purposes; generating, developing, modelling and communicating ideas.
  - *Making:* Planning; measure, mark out, cut and shape materials and components; assemble, join and combine materials and components; use finishing techniques, including those from art and design; following procedures for safety and hygiene at all times.
  - *Evaluating:* Own ideas and products.
  - *Technical knowledge:* Making products work.
  - *Cooking and nutrition:* Where food comes from; food preparation, cooking and nutrition
- Developing the use of technological language, recording and techniques.
- Developing the use of ICT where appropriate.
- Enabling our children to become effective communicators of design and technological ideas, facts and data.

2. Our teaching aims

- Teach design technology in ways that are imaginative, purposeful, well managed and enjoyable.
- Encourage and support children to ask questions about the world and use design and technology processes to try and answer them.
- Support children to make links between design technology and other subjects such as science, ICT, literacy and numeracy.

Implementation

3. How Design and Technology is structured through the school

Planning for design and technology is a process in which all teaching staff are involved. Delivering a broad and balanced design and technology education to our children is a core principle of our school. Design and technology teaching in the school is about excellence and enjoyment. We adapt and extend the curriculum to match the unique circumstances of our school.

Design technology is taught throughout the school from Foundation 1 to Year 2.

Within the Foundation Stage design and technology is taught in line with Development Matters, primarily through ***Physical development***: *Moving and handling,* ***Understanding the world:*** *Technology* and ***Expressive Arts and Design:*** *Exploring and using media and materials*, through identified topics.

Throughout the Foundation Stage children will be exposed to relevant design and technology learning experiences, including skills, knowledge and vocabulary, which are fundamental to the development and progression of design and technology skills and understanding in Key Stage 1.

In Key Stage 1, through a variety of creative and practical activities, children are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They work in a range of relevant contexts.

Design and technology is also taught where other opportunities arise and links can be made within the wider curriculum such as through following the children's interests, continuous provision in EYFS or topics and themes.

The school ensures that a broad and balanced design and technology curriculum is followed in which an iterative process of designing and making is at the heart of our children's learning.

Our design and technology scheme of learning was agreed after whole-staff discussion. It ensures progression between year groups and guarantees topics, skills and process are revisited. Teachers adapt and modify the model plans to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available. As a maintained school we ensure that any modification does not omit any of the NC.

To better suit the needs of individual classes or mixed-age groups, units may have been moved between years or amalgamated, where appropriate. However, design and technology is taught every half term throughout the school year. Some units may be taught in collaboration with outside agencies, including neighbouring secondary schools.

4. Our approach to Design and Technology

- We use the EYFS Development Matters in Foundation Stage. In KS1 alongside skills ladders we use *PlanBee* resources as a starting point for planning design and technology lessons.
- We use ICT where appropriate in design and technology.
- We use the school's intranet to share design and technology resources e.g. videos and software.
- The school combines these secondary sources with first-hand design and technology projects, building children's design and technology skills.
- We actively teach design and technology skills, and reinforce learning with selected enquiry simulations only when a hands-on practical activity cannot be done.
- We encourage children to ask and answer their own questions as far as practicable.
- Children complete one full project each half term taking increasing responsibility for designing, making and evaluating.
- We use homework to support school and class activities. This relates to the school's overall homework policy.
- We sometimes use cross-curricular links to teach design and technology with, for example, science units.
- We develop design and technology informally through school visits, parent meetings and other out-of-school activities.

5. Equal opportunities in Design and Technology

Design and technology is taught within the guidelines of the school's equal-opportunities policy.

- We ensure that all our children have the opportunity to gain design and technology knowledge, skills and understanding regardless of gender, race, class, physical or intellectual ability.
- Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias.
- We aim to teach design and technology in a broad global and historical context, using the widest possible perspective and including the contributions of people of many different backgrounds.
- We draw examples from other cultures, recognising that simple technology may be superior to complex solutions.
- We value design and technology as a vehicle for the development of language skills, and we encourage our children to talk constructively about their design and technology experiences.
- In our teaching, design and technology is closely linked with literacy, mathematics and science.
- We recognise the particular importance of first-hand experience for motivating children with learning difficulties.
- We exploit design and technology's special contribution to children's developing creativity. We develop this by asking and encouraging challenging questions and encouraging original thinking.

6. Safety in Design and Technology

The safety of the children is the responsibility of the class teacher. The children are made aware of the safe use and correct procedure involved when using tools and equipment in a learning environment and how to follow proper procedures for food safety and hygiene. The children are made aware of the need to be careful and to understand that their actions can affect others. The children build up a range of skills when using equipment to reduce unnecessary risk. All staff, including helpers, are made aware of food safety procedures when working with food to minimise any risks. The children wear protective clothing if necessary.

Impact

The impact of the design and technology curriculum at Manor Park and its contribution to the education of all our children is evaluated against our intent.

We also measure the impact of the science curriculum through formative and summative assessment.

7 Assessment and recording in Design and Technology

We use assessment to inform and develop our teaching.

Children's work is assessed against the Foundation Stage and National Curriculum expectations of progress and levels. Teachers should refer to the school's policy for Assessment, Recording and Reporting. The assessment of children's achievement is planned into design and technology teaching and used to guide subsequent lessons. Records of children's achievement should provide information for target setting. Teachers should evaluate their teaching on a weekly basis.

- Topics begin with an assessment of what children already know.
- We assess for learning (AfL). Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve. Activities during, and at the end of, each topic record achievement and celebrate success.
- We mark work, according to the schools marking policy We mark work positively, making it clear verbally, or on paper, where the work is good, and how it could be further improved. Children's work is compared with age appropriate exemplification. We moderate children's work termly to ensure consistency. Assessment records are reviewed regularly.
- By the end of a unit of work, teachers have a clear insight into how children work and their level of development. They will use notes, discussion, photos, and work in the children's individual topic books as evidence. At Foundation Stage this information about individual children is recorded in their learning journeys on Tapestry. Children are assessed according to the criteria in the Design and Technology Progression Framework to assess attainment and progress in this subject. This document has been produced by a National Curriculum Expert Group for Design and Technology and provides an age-related interpretation of the requirements as set out in the statutory programme of study. This is used to support teacher assessment.
- We have a tracking system to follow children's progress. The school design and technology coordinator monitors progress through the school by sampling children's work at regular intervals. Children who are not succeeding, or children who demonstrate high ability in design and technology, are identified and supported.

- Assessment data is used to highlight areas where intervention or catch-up work is needed. Equally important is the continuous assessment of children's work, much of which is informal. This assessment is used to inform teaching throughout the school.
- At the end of the Foundation Stage a child's work in design and technology will contribute to their EYFS profile and Physical Development, Expressive Arts and Design and Understanding the world ELG's. This is then reported as meeting expected levels of development, exceeding expected levels, or not yet reaching expected levels ('emerging') in line with statutory requirements.
- At the end of Year 2 the teacher decides which level descriptor from the National Curriculum best fits an individual child's achievement in each of the attainment targets. This is then recorded and reported as part of the statutory End of Key Stage One Assessment Arrangements at Key Stage 1
- Reports to parents are made verbally each term, and written once a year, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the content of science.

This Science policy was compiled by Manor Park staff and written by the Science Coordinator.
Date: March 2020 Review date: September 2025