

## Design and Technology Intent, Implementation and Impact

### Intent

The National Curriculum states that:

*Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils 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 Park Street C of E Primary School, our design and technology curriculum is designed to prepare children for the developing world. The subject encourages children to become creative problem-solvers, both as individuals and as part of a team. Through the study of design and technology children combine practical skills with an understanding of aesthetic, social and environmental issues, in order to design and make a product. Evaluation is an integral part of the design process and allows children to adapt and improve their product, this is a key skill which they need throughout their life. Design and technology helps all children to become discriminating and informed consumers and potential innovators.

We feel that the teaching of food and nutrition is of great importance and holds great relevance in current times. For this reason, our aim is to make sure children study a food and nutrition unit every year. By instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

### Implementation

At Park Street our design and technology curriculum is built around essential knowledge, understanding and key skills. These are broken into year group expectations and show clear continuity and progress. All teaching of design and technology follows the design, make and evaluate cycle. The design process should be relevant in context, to give meaning to learning. While making, children should be given choice and a range of tools to choose freely from. When evaluating, children should be able to evaluate their own products against a design criteria. Each of these steps should be rooted in technical knowledge and vocabulary.

We have a two year rolling programme – please see our progression of skills document for more details.

As in the other areas of the curriculum, a range of metacognitive strategies are embedded in the planning and teaching of this subject at Park Street, as they are proven to have a measurable and significant impact on learning (see the work of John Hattie). Children are provided with learning journeys, outlining key learning objectives at the start of each topic, and these are referred to at the start of each lesson, reviewing what has been covered so far and what will be learned next. Learning objectives and success criteria are made explicit at the start of every lesson. Learning journeys, clear objectives and success criteria develop pupils' knowledge of their own learning and progression, helping them to embed knowledge from surface to deep to transferable, and committing learning to long term memory to enable progression.

## Inclusion

We seek to make learning opportunities accessible to all by providing tasks which offer scaffolding for any children who may need it, including our pupils with SEND, Pupil Premium and those with English as an additional language. We endeavour to give every single child the opportunity to make progress and excel. We achieve this by:

- setting common tasks which are open-ended and can have a variety of responses.
- setting tasks of increasing difficulty: not all children complete all tasks but all children have opportunity to try.
- when appropriate, grouping children by ability in the room and adjusting tasks, support or resources for each group.
- providing resources of different complexity or reading level depending on the requirements of the child.
- using teaching assistants or teacher to support or extend children individually or in groups.
- planning off-site visits, online lessons and expert visitors wherever possible, to ensure pupils can experience subject-specific expertise.
- setting additional 'challenge' tasks or questions to engage our gifted and talented children.

We ensure that all our children have the opportunity to gain knowledge and understanding regardless of gender, race, physical or intellectual ability. Our expectations set no limits on pupil achievement and assessment precludes cultural, social, and linguistic or gender bias.

## Early Years

We teach design and technology in EYFS as an integral part of the topic work covered throughout the Reception year. We follow the statutory Early Years Foundation Stage Framework and we use 'Development Matters' as a vehicle for delivering our curriculum. This enables us to cover the expressive arts and design objectives which ensure that we incorporate DT knowledge and skills. These Early Learning Goals (ELGs) underpin the curriculum planning for children aged three to five. DT makes a significant contribution to the ELG objectives; if children's thoughts and feelings are sought and valued and they are encouraged to decide for themselves how best to represent their ideas, explore possibilities, make new connections and solve problems, they are developing the skills for life-long learning and confidence in themselves, both as thinkers and as learners. The characteristics of effective teaching and learning are essential in supporting learning and development in expressive arts and design, empowering children to see themselves as capable, competent and creative learners.

Our enabling EYFS environment provides our Reception children with:

- opportunities to experiment with inspiring and accessible media and tools
- the freedom to make a mess and mix materials
- space to create individually and collaboratively
- places for display/labelling or opportunities for taking work home (take photographs of items that children choose to take home)
- opportunities to make choices
- the right help at the right time; ensure children are given sensitive and appropriate help when they ask or are struggling
- support to develop mastery in a range of skills, techniques and safety rules

- opportunities to develop strong gross and fine motor skills through the manipulation of materials and tools in a variety of contexts
- the vocabulary of feelings and opportunities to take part in activities that allow them to express their own feelings and emotions
- opportunities to talk about and evaluate their own achievements.

### Health and Safety

- Teachers plan safe activities, both on and off-site and must consult the generic DT risk assessments for the activities they are planning to carry out. These can be found on Microsoft Teams. They complete a specific additional risk assessment if necessary.
- The use of any equipment/materials/sources are modelled carefully prior to pupil access.
- Expectations about how to place, carry and use equipment/materials/sources are carefully outlined.

### The Design and technology Co-ordinator

- Takes the lead in policy development and the implementation of the Scheme of Work.
- Supports colleagues in their development of planning and implementation of the Scheme of Work.
- Monitors the resources and takes responsibility for the purchase and organisation of central resources for DT.
- Keeps up to date with developments in design and technology education and disseminates information to colleagues as appropriate.
- Monitors the teaching and learning of DT throughout the school.

Educational visits are another opportunity for the teachers to plan for additional design and technology learning outside the classroom. At Park Street, the children have opportunities to experience design and technology on educational visits. The children have visited local museums, had visitors into school to share learning and have hands on experiences; in future will visit food establishments.

### Impact

The impact of our design and technology curriculum can be seen not only in our photographs of the children's design and technology projects, but also through classroom displays and the school environment.

Everything we do is with the child in mind, and strong relationships are built between pupils and staff which create an atmosphere for learning which is conducive to success. Evaluation and learning from error is an integral part of this subject; a life-skill which is transferable to all other curriculum areas. Staff make this aspect of learning explicit as they teach this subject.

We measure the impact of our curriculum through the following methods:

- Summative assessment of pupil discussions about their learning.
- Images of the children's practical learning.
- Interviewing the pupils about their learning (pupil voice).
- Pupil's books are scrutinised and there is the opportunity for a dialogue between teachers to understand their class's work.
- Annual reporting of attainment and effort across the curriculum.
- Marking of work in books. Children in Foundation Stage are assessed within Expressive Arts and Design area of the EYFS curriculum, with achievements recorded on 'Tapestry'.