Document owner Author:	Etwall Primary School Erica Dawson	Signed by Headteacher	Abentley
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# Design Technology Intent, Implementation and Impact

### Statement of intent

At Etwall Primary School, we value Design Technology as an essential pDesign Technology of the children's entitlement to an ambitious and relevant curriculum. Design and Technology offers children the opportunity to engage with current and relevant technologies, through which they will develop skills to carry them forward into the technological age, and into real life. The experiences we offer our children will provide them with opportunities to be curious and explore through practical experiences, as well as developing our reflection skills and building resilience.

# **Implementation**

All teaching of DT should follow the design, make and evaluate cycle. Each stage should be rooted in technical knowledge. The design process should be rooted in real life, relevant contexts to give meaning to learning. While making, children should be given choice and a range of tools and materials to choose freely from. Children should be able to evaluate their own products against a design criteria. In each task, technical knowledge and vocabulary should be at the core, used in a progressively more complex manner as children move through the school. There should be evidence in each stage in the DT books, which should also develop to show clear progression across the key stages as they are passed up through each year group.

In addition, the Design and Technology curriculum will be delivered in tandem with the science curriculum, to offer learners a robust and relevant STEM experience. This is a pDesign Technologyicularly pertinent focus for the children of our community, as they are surrounded by world famous engineering firms, including Bombardier and Rolls Royce who lead their field, and who may provide our learners with careers and opportunities in the future.

# **Impact**

Children will be skilled designers with an ability to reflect on and improve their own designs and model development. Their ability to improve and critique the designs of others, as well as accepting criticism. They will develop the means to adapt and change their approach, and consider the engineering features that are involved in doing so. This will ensure that they are challenged and encourages problem solving as well as building curiosity. These are valuable life skills which are relevant, especially to children who may move into the engineering field which is so very well established in our local area.

# **Skills Progression**

Teachers have identified the key knowledge and skills to be taught in each blocked topic and consideration has been given to ensure progression across topics throughout each year group across the school. See Appendix 1 for DT skills progression.

### **Assessment**

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Assessment is supported by the following strategies:

- Observing children's work in Design Technology, individually, in pairs, in groups and in class during whole class teaching.
- Recording of the progress made by children against the learning objectives for each lesson with agreed success criteria.

- Using differentiated, open-ended questions that require children to explain and deepen their understanding.
- Providing effective feedback, which is mainly verbal, to engage children with their learning and to provide opportunities for self-assessment, consolidation and target setting.
- Book moderation and monitoring of outcomes of work, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners.
- Encouraging children to assess and evaluate both their own work and that of other pupils to appreciate how they can improve their performance and set their targets for the future.
- Formally reporting each child's attainment and progress in Design Technology to parents at the end of the year in the child's end of year report.

# **Early Years**

In the Early Years, pupils explore Design Technology themes and content through the EYFS curriculum and, in particular, the strands of Physical Development (PD), Understanding the World (UTW) and Expressive Art and Design (EAD). We follow the Development Matters Early Years Curriculum which supports children in acquiring a succession of stepping stones that will enable them to achieve their Early Learning Goals. The children have the opportunity to use a wide variety of Design Technology resources in their learning through activities such as junk modelling which also supports their fine motor skills.

# **SMSC Development**

Spiritual Development is nurtured through the process of creative thinking and innovation which inspires our pupils to bring out undiscovered talents; this builds self-confidence and a belief in their unique abilities. We also seek to develop a sense of 'moral conscience', through thinking about the moral dilemmas raised in designing and making new products and the wider impact this may have on the environment as a result of the materials used. Design and Technology supports social development by providing opportunities for our children to work as a team, recognising others' strengths and sharing equipment safely when designing and making new products in order to maintain a safe, secure, learning environment. Design and Technology supports cultural development by encouraging children to research and reflect on ingenious products and inventions. Children look at the diversity of materials and ways in which design technology has improved our quality of life in the past and present, and how it will most certainly benefit us in the future.

# **Diversity**

Design and Technology reflects on products and inventions, the diversity of materials and ways in which design can improve the quality of our lives. Design and Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated.

# **Equal Opportunities**

At Etwall Primary, we are committed to providing a teaching environment which ensures all children are provided with the same learning opportunities regardless of social class, gender, culture, race, special educational need or disability. Teachers use a range of strategies to ensure inclusion. Support for specific individuals is well considered and planned for, with consideration given to how greater depth and further challenge can be implemented.

# Inclusion

All pupils are entitled to access the Design Technology curriculum at a level appropriate to their needs. Independent tasks, as well as teaching, are also well adapted to ensure full accessibility, as

well as to provide appropriate challenge to different groups of learners. The school makes full use of additional adults who are deployed effectively to ensure that identified children are able to make progress in each curriculum area, according to their full potential. Teaching takes account of children's own interests to ensure topic relevance. Opportunities for enrichment are also considered, to ensure a fully inclusive and engaging Design and Technology curriculum.

# **Health and Safety**

The curriculum will be delivered in a safe and healthy manner; every effort will be taken to identify risks associated with a curriculum subject/activity and the appropriate control measures will be implemented. Pupils will be educated about health and safety issues as and when the opportunity arises throughout the course of normal teaching.