



Beechwood Primary School

Design Technology Policy

Tell me and I forget – show me and I may remember – let me do it and I learn. Learning through making works!

Prue Leith, Leith's School of Food and Technology.

This document is a statement of the aims and principles for the teaching and learning of Design Technology (DT) at Beechwood Primary School.

Introduction

DT prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. Through the study of DT they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past DT, its uses and its impacts. DT helps all children to become discriminating and informed consumers and potential innovators.

Design and Technology is about making things that people want and that work well. Creating these things is hugely exciting: it is an inventive, fun activity.

James Dyson, Chairman, Dyson Ltd.

Aims

The aims of DT are:

- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making
- To enable children to talk about how things work and to draw and model their ideas
- To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures
- To explore attitudes towards the made world and how we live and work within it
- To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society
- To foster enjoyment, satisfaction and purpose in designing and making.

Curriculum Planning

Our school uses the National Curriculum as the basis for its curriculum planning in DT. We carry out the curriculum planning in DT in three phases: long-term, medium-term and

short-term. The long-term plan maps out the units covered in each term during the key stage. Our medium-term plans give details of each unit of work for each term. LCP units can be used as a basic guide for skills coverage, but these should be adapted to reflect the themes or topic studied each term and take into account the children's interests. Plans will identify learning objectives and outcomes for each unit, and ensure an appropriate balance and distribution of work across each term. We plan the activities in DT so that they build upon the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Teaching and Learning

Our principal aim is to develop the children's knowledge, skills and understanding in DT. We ensure that the act of investigating and making something includes exploring and developing ideas, and evaluating and developing work. Teachers draw attention to good examples of individual performance as models for the other children. They encourage children to evaluate their own ideas and methods, and the work of others, and say what they think and feel about them. Children are given the opportunity within lessons to work on their own and collaborate with others, on projects in two and three dimensions and on different scales. Children also have the opportunity to use a wide range of materials and resources, including ICT.

Foundation Stage

We encourage the development of skills, knowledge and understanding that help reception children make sense of their world. As the reception classes are part of the Early Years Foundation Stage, we relate the development of the children's knowledge and understanding of the world to the objectives set out in the Early Learning Goals. These underpin the curriculum planning for children aged three to five. This learning forms the foundations for later work in DT. 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 materials safely and with increasing control. We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

During Key Stage 1 children will learn how to think imaginatively and talk about what they like and dislike when designing and making. They build on their early childhood experiences of investigating objects around them. They explore how familiar things work and talk about, draw and model their ideas. They learn how to design and make safely and may start to use ICT as part of their designing and making.

During Key Stage 2 children will work on their own and as part of a team on a range of designing and making activities. They think about what products are used for and the needs of the people who use them. They plan what has to be done and identify what works well and what could be improved in their own and other's designs. They draw on the knowledge and understanding they have of other areas of the curriculum and use a range of IT resources.

Subject Specific Resources

DT resources are stored in the central resource area and must be returned after use. Please notify the subject leader in the event of resources needing replenishing.

Assessment

In Foundation Stage 2 assessments are made in line with the Development Matters age bands and the Early Learning Goals.

In Key Stages 1 and 2, teachers will use the Chris Quigley exemplification materials to assess and level children's work. At the end of each taught unit of work, teachers will use the key skills in National Curriculum subjects' statements to assess attainment.

Assessment will be made through teacher observation, discussion and activity outcomes.

Evidence of children's work will be held in the DT Portfolio.

Equal opportunities and Inclusion

All staff at Beechwood Primary School are responsible for ensuring that all pupils, irrespective of gender, ability, ethnicity and social circumstances have access to a broad and balanced curriculum and are given the opportunities to make the greatest possible progress while at school. Through our DT teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. To ensure that all children can access the learning opportunities provided, a range of factors are considered– classroom organisation, teaching materials, teaching style, and differentiation. This ensures that teaching is matched to the child's needs. The provision of special tools for some pupils must be considered when planning activities.

Able, Gifted and Talented

These children will be identified by staff and placed on the A,G & T register. Teaching staff will plan appropriate differentiated learning experiences to challenge and extend children who are able, gifted or talented in DT

SEN

The aim is to ensure that all pupils make progress and gain positively from each lesson. All teachers aim to:

- Plan lessons so that all pupils can be included.
- Use a range of resources, including the use of ICT, effectively to allow access to whole class or group work.
- Differentiate tasks and activities.
- Organise the class and deploy staff to support group or individual needs.

Health and Safety

As DT involves the use of potentially dangerous tools, pupils and teachers must be aware of the safety requirements. Direct safety instructions will be given to children each time they undertake a DT activity involving the use of tools. This should be given by the class teacher and reinforced by supporting adults. Children must be encouraged to report possible safety hazards.

- All loose clothing must be removed or secured and long hair must be tied back.
- Children should work in small groups and must be supervised by an adult when using equipment.
- Tools must be stored carefully whilst in the classroom and returned by an adult to the resource room after each lesson.
- Appropriate safety equipment eg. Protective eye wear, should be used where appropriate. Please check the DT risk assessment for more information.

A risk assessment for the risks associated with the teaching and learning of DT will be carried out regularly by the Subject Leader. Adults using DT equipment must check that it is safe and suitable for use before each lesson.

Working with food

Food technology lessons require certain specific safety and hygiene matters to be addressed. An adult must supervise all activities involving cooking; teachers must ensure that adult helpers are aware of all matters relating to health and safety. Areas to be considered include cleanliness, personal hygiene, protective equipment, floors and floor coverings, fixtures and fittings, furniture, food preparation equipment, tasting food, waste removal and disposal.

Cross Curricular

There are many learning opportunities across the curriculum, which encompass elements of Design Technology.

- **English**
The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion, children learn to justify their own views and clarify their design ideas.
- **Mathematics**
DT contributes to the teaching of mathematics in our school by giving opportunities to develop the children's understanding of shape and space through work in two and three dimensions. It also provides practical opportunities to develop the use of positional language, measuring and calculation.
- **Information technology (IT)**
We use IT to support design and technology teaching when appropriate. Children use software to enhance their skills in designing and making, and use draw-and-paint programs to model ideas and make repeating patterns. They use databases to provide a range of information sources and
- **Personal, social and health education (PSHE) and citizenship**
DT contributes to the teaching of personal, social and health education and citizenship. We encourage the children to develop a sense of responsibility in following safe procedures when making things. They also learn about health and healthy diets. Their work encourages them to be responsible and to set targets to meet deadlines, and they also learn through their understanding of personal hygiene, how to prevent disease from spreading when

working with food. The children discuss how they feel about their own work and the methods and approaches used by others.

- **Spiritual, moral, social and cultural development**

The teaching of DT offers opportunities to support the social development of our children through the way we expect them to work with each other in lessons. Our groupings allow children to work together, giving them the chance to discuss their ideas and feelings about their own work and the work of others. Through their collaborative and cooperative work across a range of activities and experiences in DT, the children develop respect for the abilities of other children and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety and for that of others. They develop their cultural awareness and understanding, and they learn to appreciate the value of differences and similarities. A variety of experiences teaches them to appreciate that all people are equally important, and that the needs of individuals are not the same as the needs of groups. They develop an understanding of different times, cultures and religions through their work on famous designers and craftspeople.

Monitoring and Evaluation

The monitoring of the standards of children's work and of the quality of teaching in DT is the responsibility of the DT subject leader. The work of the subject leader also involves supporting colleagues in the teaching of DT, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

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