

**Christ Church CE School  
Design and Technology Policy  
Autumn 2015**



Christ Church  
CE Primary School  
Regents Park  
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Christ Church C of E Primary School  
Design and Technology Policy

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**Christ Church C of E Primary School**  
**Design and Technology Policy**

**Mission Statement**

**The Christian Faith is at the heart of our school community. At Christ Church we care for each other and learn together.**

Christ Church is a small, caring school which is committed to a broad, balanced curriculum and to a continual raising of standards. We aim to contribute to the spiritual, moral, cultural, mental and physical needs of every individual.

We are a Church of England school, with a strong commitment to the teaching of Christianity whilst supporting a multi-faith approach to the curriculum. We recognise, value and celebrate the rich cultural diversity that exists in our school.

The Christian ethos of the school is reflected in our positive, disciplined and calm atmosphere. We believe that effective learning takes place when children work in a purposeful and stimulating environment that supports a wide range of learning styles. Mutual respect between adults and children promotes excellent behaviour and well developed social skills. With this approach we seek to achieve high academic standards.

We aim to cater for each individual, taking particular account of any specific needs or abilities. We endeavour to ensure that all our children fulfil their potential and, within this context, we emphasise health and safety, enjoyment and achievement and the beginnings of responsibility for themselves and others. These skills will be carried forward to the next phase of education and throughout life.

The whole school community is committed to a collective responsibility for the implementation of the values inherent in this statement.

# **Our School Aims - Every Child Matters**

## **The Ethos of the School**

The school aims to provide a positive, disciplined, purposeful environment, within a Christian context. We aim to teach children to be caring, to exhibit good behaviour and appropriate social skills and to begin to take responsibility for themselves and others.

## **The Values of the School**

The School aims to value every child and to contribute to the Spiritual, Moral, Cultural, Mental and Physical well being of our whole school community. We value the diversity of our community and we aim to promote the health and safety of everyone.

## **The Standards of the School**

The School aims to teach a balanced Curriculum and to ensure that each child fulfils his or her potential. We aim to provide teaching and learning of a high standard. We believe that this is achieved when pupils are highly motivated, enjoy coming to school, and are appropriately challenged.

# Design and Technology Policy

**Date of policy:** Autumn 2015

**Review date:** Autumn 2018

## INTRODUCTION

This document is a statement of the aims, principles and teaching strategies for the teaching and learning of Design and Technology at Christ Church Primary School.

This policy will be submitted to the Governing Body. Review of the policy will take place once every three years.

## RATIONALE AND EQUAL OPPORTUNITIES

### **Why have a Design and Technology policy?**

Our purposes in developing a written policy for Design and Technology (D&T) are:

- To raise the standards of teaching and learning of D&T throughout the school
- To have a unified and consistent approach to the teaching of D&T throughout the school
- To help teachers in planning and implementing activities for the children appropriate to their stage of development

## AIMS AND OBJECTIVES OF DESIGN AND TECHNOLOGY

The aims of the teaching of Design and Technology (D&T) are as follows:

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

- To encourage children to become autonomous and creative problem-solvers, both as individuals and as part of a team

### **THE TEACHING AND LEARNING OF DESIGN AND TECHNOLOGY**

The school uses a variety of teaching and learning styles in Design and Technology (D&T) lessons. The principal aim is to develop children's knowledge, skills and understanding in D&T. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products, and then evaluating these products. 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 ICT.

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 give children of all abilities the opportunity to develop their skills, knowledge and understanding. This is achieved 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 children can complete the tasks appropriate to their ability and skills.
  - grouping children by ability, and setting different tasks for each group
- having children work in mixed-ability groups, to allow the more able to model to and scaffold those less skilled
- providing a range of challenges through the provision of different resources
  - using additional adults to support the work of individual children or small groups

### **DESIGN AND TECHNOLOGY CURRICULUM PLANNING**

Design and technology (D&T) is a foundation subject in the National Curriculum.

It is expected that at least two QCA unit will be taught as a discrete D&T unit each year, with one of these being a topic related to food. During this unit all of the stages of the D&T process will be covered in some depth. These include:

- Investigative, disassembly and evaluative activities (IDEAs)
  - Focused practical tasks (FPTs)
  - Design and make assignment (DMA)

In conjunction with the QCA scheme of work the National Curriculum guidelines should be followed when planning and teaching D&T:

### Design

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

### Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

### Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

### Technical knowledge

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

We carry out the curriculum planning in D&T in three phases: long-term, medium-term and short-term:

- The long-term plan maps out the unit(s) to be covered. When selecting the units to be taught, the subject leader works in conjunction with teaching colleagues in each year group. Where possible, cross curricular links are made with other subjects.
- The medium-term plans give details of each unit of work. They list the specific learning objectives and expected outcomes for each lesson, the resources needed for each lesson and detail how the lessons are to be taught. The plans ensure that all aspects of the design and making process are covered

In addition to the teaching of at least two discrete units, it is expected that class teachers will make cross curricular links with D&T and other subjects whenever possible. This may also include projects and activities which link to festivals and other special occasions (e.g. Reflection Day, Food for Thought, Mother's Day).

We plan the activities in D&T so that they build on the prior learning of the children. and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

## **EARLY YEARS FOUNDATION STAGE**

Although 'Exploring and using media and materials' appears explicitly in the 'Expressive Arts and Design' area of the Early Years Foundation Stage (EYFS) curriculum it also appears in the learning areas of 'Physical Development' and 'Understanding of the World.' By the end of their time in Reception, children are expected to have met the following Early Learning Goals:

### **Information and Technology ('Understanding of the World')**

- Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

### **Moving and Handling ('Physical and Development')**

- They handle equipment and tools effectively, including pencils for writing.

### **Health and self-care ('Physical Development')**

- Children know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe.

### **Exploring and using Media and Materials ('Expressive Arts and Design')**

- Children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

### **Being Imaginative ('Expressive Arts and Design')**

- Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.

The focus in the EYFS is to teach children to use a range of tools and materials, such as scissors, hole punches, staplers, Sellotape and glue, effectively and safely. Children can then use these skills in order to design and make objects. This may be independently or as part of an adult-led, small group session.

Children are provided with opportunities to engage in designing and making activities both indoors and outdoors in the EYFS.

## **CONTRIBUTION OF DESIGN AND TECHNOLOGY TO TEACHING IN OTHER CURRICULUM AREAS**

### **English**

Design and Technology (D&T) contributes to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their English lessons. 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**

In D&T there are many opportunities for children to apply their mathematical skills through choosing and using appropriate ways of calculating measurements and distances. They learn how to check the results of calculations for reasonableness, and learn how to use an appropriate degree of accuracy for different contexts. Children learn to measure and use equipment correctly. They apply their knowledge of fractions and percentages to describe quantities and calculate proportions. The children will carry out investigations and in doing so they will learn to read and interpret scales, collect and present data, and draw their own conclusions. They will learn about size and shape, and make practical use of their mathematical knowledge, in order to be creative and practical in their designs and modeling.

### **Science**

There are many opportunities for children to apply the skills and knowledge they have acquired in science to the planning and making processes in D&T. For example, they can apply their understanding of materials and their properties when making choices about which materials should be selected for a project, and how these may change under different conditions. Children could be encouraged to apply their understanding of electricity to design projects involving circuits and will be able to identify why an electrical circuit is not working. Learning about healthy living and eating will help children to make more informed choices about which ingredients to select for cookery, and should reinforce messages provided about the importance of cleanliness and hygiene. Understanding why objects move the way they do, and how different forces can affect an object, will provide children with a deeper understanding of how the internal mechanisms of moving toys and systems work.

### **Personal, social and health education (PSHE) and citizenship**

D&T 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.

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

The teaching of D&T 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, and give 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, 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.

### **Information and Communication Technology (ICT)**

Information and communication technology enhances the teaching of D&T, wherever appropriate, in all key stages. Children use software to enhance their skills in designing and making things. Younger children are able to use simple desktop-publishing software to try out designs. Older children use an ICT control program to control mechanisms and to get them to move in different ways, either in a virtual world or via an infrared connection to working models. The children also use ICT to collect information and to present their designs through a range of design and presentation software.

### **DESIGN AND TECHNOLOGY AND INCLUSION**

At Christ Church we teach Design and Technology (D&T) to all children, whatever their ability. D&T conforms with 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 progress. We do this by setting suitable learning challenges and responding to each child's different needs.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks 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. This helps ensure that our teaching is matched to the child's needs.

We enable pupils to have access to the full range of activities involved in learning D&T. Where children are to participate in activities outside the classroom, for example in a museum or on a factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils. Reasonable adjustments will always be made to include all pupils.

### **ASSESSMENT FOR LEARNING**

Teachers assess children's work in Design and Technology (D&T) by making assessments as they observe them working during lessons. They record the progress made by children against the learning objectives for their lessons. This information is then used to plan future lessons and ensure that lessons and activities are pitched at the correct level.

Older children are encouraged to make judgements on ways in which their work can be improved.

## **RESOURCES**

The school has a wide range of resources to support the teaching of Design and Technology (D&T) across the school, which are kept in labelled boxes in the Resource Room. These boxes will contain the appropriate resources, as well as any additional information sheets such as help sheets and safety guidelines. This room is accessible to children only under adult supervision.

Consumable materials such as Sellotape and PVA glue will be given out at the beginning of the year to the class teachers. Requests for other consumables (such as wood, plastics and materials) should be forwarded to the subject leader. Food will be bought and used on the day it is needed.

## **HEALTH AND SAFETY**

An important aspect of Design and Technology (D&T) is the need to develop the children's awareness of the need to work safely and with due regard to the health and safety of themselves and others. Children will be shown how to use equipment correctly and will be given the opportunity to practise skills and techniques under supervision.

Particular attention to health and safety will be paid in the following areas:

- Working with food - Cooking utensils and work areas should be kept meticulously clean. Children should learn simple personal hygiene rules such as wearing a clean apron, washing hands before handling food and not eating food as they are cooking.
- Working with tools (e.g. glue guns, saws) - Children will only use tools when correct procedures and safety considerations have been modelled and discussed with the class. The class teacher is responsible for remaining vigilant when such tools are in use, and ensuring that children have adequate space in which to work. When not in use, all tools should be stored in the resource room.

## **MONITORING AND REVIEW**

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

The effectiveness of this policy will be continually reviewed by the D&T subject leader and senior leadership team.