

# BROOMWOOD PRIMARY SCHOOL

## Design and Technology Policy

### **Rationale:**

In keeping with the ethos of Broomwood School, we believe every child within our school should have full access to Design and Technology as laid down in the National Curriculum 2014 regardless of gender, ethnicity or ability. We believe that Design and Technology is essential to prepare children to participate in the rapidly changing technologies of our world. Through this subject children develop their investigating, designing, making and evaluating skills by thinking and intervening creatively.

We believe all children should be encouraged to believe, achieve and succeed for a brighter future, within a positive, enjoyable atmosphere, which inspires all to learn and grow!

We seek to ensure that our teaching reflects the current guidance to schools which emphasises the particular importance of designing, making and evaluating.

### **Our aims for Design and Technology are to:**

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.
- Critique, evaluate and test their ideas and products and the work of others.
- Understand and apply the principles of nutrition and learn how to cook.

### **Objectives**

Our objectives in teaching Design and Technology are that all children should be able to:

- Show interest and motivation in designing and making.
- Show knowledge of a variety of materials, tools and components.
- Show an awareness of the need to exercise safe and hygienic practices and to employ these whilst working.
- Creatively apply their knowledge and skills when designing and making.
- Communicate their ideas orally, in writing, drawing and in 3 D models.
- Plan work individually and as a member of a team.
- Evaluate and make appropriate modifications within their designing and making.
- Evaluate the work of others, including those from other times and cultures.
- Show an awareness of the ways in which a design and technology activity might have an effect upon people and the environment.
- Investigate the work of designers through first hand experiences.

## Organisation and Planning

We accept the need to plan educational programmes which deliver Design and Technology as defined in the existing statutory orders to each child. Where possible we integrate Design and Technology into our curriculum, creating many cross curricular links. Due to this, Design and Technology may be taught in blocks rather than on a weekly basis. At Broomwood Primary School classes are to complete at least one Design and Technology project each term (totalling three a year) linked to the appropriate topic as set out below in the two year overview of skills and topics in Design and Technology.

## Overview of Skills and Topics in Design and Technology

<b>KS1</b>	<b>Mechanisms</b> (Simple lever- 1 lever to cause one action)	<b>Food</b> (Preparing cold food – fruit/veg)	<b>Structures</b>
	<i>Topic – Changes within living memory</i>	<i>Topic – Circle of life</i>	<i>Topic – Who lives in a house like this and where is it?</i>
	<b>Mechanisms</b> (wheels and axles)	<b>Food</b> (Preparing cold food – Savoury e.g. sandwiches)	<b>Textiles</b> (Sew, join, patterns, templates)
	<i>Topic - Superheroes</i>	<i>Topic – Investigating India</i>	<i>Topic – Seaside</i>
<b>Low er KS2</b>	<b>Food</b> (Heat element)	<b>Mechanisms</b> (2d levers and linkages)	<b>Structures</b>
	<i>Topic –Brilliant Bodies</i>	<i>Topic - Vikings</i>	<i>Topic – Stone age to Celts</i>
	<b>Electrical systems</b> (computer control)	<b>Textiles</b> (3d e.g. making a bag)	<b>Food</b> (Use heat e.g. making bread and designing different flavours)
	<i>Topic – Rise of the robots</i>	<i>Topic – Rotten romans</i>	<i>Topic – sounds amazing</i>
<b>Upp er KS2</b>	<b>Food</b> (Use heat)	<b>Mechanical systems</b>	<b>Textiles</b>
	<i>Topic - Tudors</i>	<i>Topic – Adventures in space</i>	<i>Topic – Raging rivers and monstrous mountains</i>
	<b>Food</b> (Use heat)	Mechanical systems, structures (Grand designs – The Ancient Greeks), electrical systems (How do we see?), computer control, textiles (Americas)	
	<i>Topic – Africa</i>	(Teachers to choose the appropriate topics based on coverage and gaps in children’s skills)	

All pupils take part in a series of design and make projects. Specific skills are taught within these projects through structured teaching and through the application of those skills in more open ended projects. As the children go through the school, they will build on their skills and have the opportunity to practise a range of skills in one project.

In order to address a number of 'Every Child Matters' outcomes (Stay Safe, Be Healthy, Enjoy and Achieve) we have an established room for food technology, where children have access to cooking facilities and resources. Children are to be supervised at all times when using this room and it is to be locked when vacant. Alongside cooking lessons, children are to be taught the importance of a healthy diet and preparing food hygienically.

Within the Foundation Stage, Design and Technology is taught through a cross-curricular approach using the Early Years Foundation Stage Curriculum 2012. Children learn to explore a variety of technological toys and ICT equipment through the Understanding the World area of learning. They learn about cooking, food safety and hygiene through the Physical Development area of learning. Children also explore a variety of tools, techniques and materials through the Expressive Arts and Design area of learning.

### **Assessment and Monitoring**

Each Design and Technology project will be evidenced in the children's topic books through the use of a workbook. During the project the children will use their work book to record their research, designs and evaluations. Where possible photographic evidence of the children practising their skills and their final products are to be included in the workbooks. Although two year groups complete the same project, the different level of skill and questioning must be reflected in the children's workbooks and lesson plans.

Teachers must ensure that all aspects of Design and Technology are taught. When designing and making children must be taught to design, make and evaluate their work. They must also develop their technical knowledge. Medium term planning, short term planning and topic books will provide evidence of the coverage of all aspects of Design and Technology. Teachers will be able to assess children's understanding during lessons through discussions, observations and their evaluations of their final piece of work.

Teachers will assess children in this subject as being emerging, expected or exceeding. These judgements will be reported to parents at the end of the year through the children's reports.

Within the Foundation Stage observational evidence is collected throughout the year and is used half termly to make assessments through Target Tracker. At the end of Reception children are judged as being emerging, expected or exceeding within all areas of learning. In the early years, children should be encouraged to plan their ideas before construction or creating models. They need opportunities to develop their early DT skills and have the opportunities to evaluate their creations through the use of adult questioning and interaction.

### **Health and Safety**

An important aspect of Design and Technology 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 adult supervision. Annual Health and safety checks are carried out to ensure that staff continue to be aware of the need for vigilance in this area. Staff are not permitted to use electrical equipment from home, without gaining permission from the Head teacher.

The teacher is the final decision maker about safety in his/her classroom. If there is any doubt about how to work safely, or the capacity to provide the necessary level of supervision then the activity should be postponed until advice from the subject manager or Headteacher has been obtained. If activities are deemed to be dangerous then other alternatives should be sought.

All relevant risk assessments have been carried out and will be updated as necessary. Teachers are to read and evaluate risk assessments before teaching any Design and Technology lessons.

Where a child or member of staff is involved in an accident during a Design and Technology lesson, the incident must be recorded in the first aid book and the help of a first aider must be sought (depending on the severity of the accident). Parents are to be informed of any accident either through the first aid book or through a telephone call, depending on the severity of the injury. Please report all serious injuries to the head teacher.

### **Food technology lessons**

Teachers are to seek the permission of parents before allowing the children to prepare and consume any food. It is the responsibility of the teacher to be aware of any allergies or dietary requirements of the children in their class and cater towards them. Teachers are to inform the Design and Technology coordinator about the possible purchase of ingredients before purchasing them for cooking activities. Teachers are to ensure that all food purchased is stored correctly and is in date to avoid possible illness.

### **Equal Opportunities and inclusion**

All children at Broomwood School have complete access to Design and Technology regardless of gender, ethnic origin or ability. Individual tasks should be structured so that all pupils can achieve success whatever their level of ability or special circumstance, although all pupils will work in a variety of grouping, i.e. individually, in pairs, small groups and large groups.

Broomwood Primary School recognises that children with Special Education Needs (SEN) are very diverse and include children with a physical impairment, visual impairment, hearing impairment, learning difficulty, specific learning difficulty (e.g. dyslexia), mental health issues, people who are deaf, British sign language users and people with long term health conditions. Broomwood Primary School is committed to challenging discrimination and promoting equality at all levels and in all aspects.

Teachers must therefore differentiate their Design and Technology lessons to meet the needs of all pupils. Where necessary teachers must provide suitable equipment and adult support to those who require it to make progress in Design and Technology.

### **Gifted and Talented**

Children are encouraged to achieve their full potential in Design and Technology, however where the school's resources do not meet the needs of particularly talented children, extra provision will be sought by either the coordinator or the class teacher.

### **ICT**

Whenever ICT or technology is used in this subject, the ICT and E-Safety policies will be followed.

### **In-service Training and Support**

Training is available through Trafford LEA courses, which are run at regular intervals throughout the year. The subject manager attends co-ordinator meetings and reports through staff meetings on developments and issues concerning Design Technology. It is the responsibility of each teacher to take up the training opportunities available to them.

**Policy Review**

The implementation of this policy will be overseen by the Head teacher and it will be agreed annually.

Reviewed by K Fowler January 2017

**Approved:**

**Reviewed:**

**Chair of Governors** \_\_\_\_\_

**Date** \_\_\_\_\_