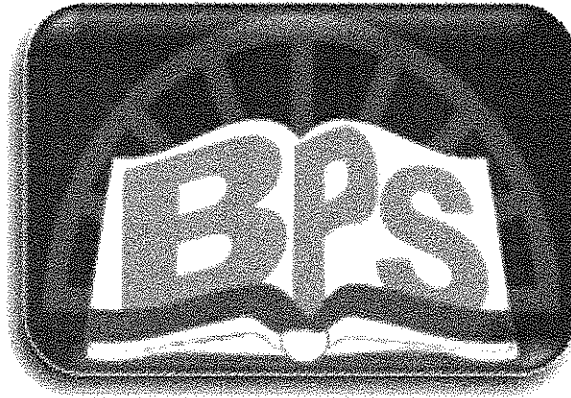


Design and Technology Policy



Brinsley Primary and Nursery School

School Policy for

# Design and Technology

Updated: January 2019

Review: January 2020

## Design and Technology Policy

### **Introduction**

Design and Technology is a practical and creative subject that gives pupils the opportunity to use their imagination to design and make products considering their own and other's needs. They use other subject areas such as maths, science, art and computing to support their enquiries and to develop and apply learnt skills. Design and Technology makes pupils think critically and evaluate ideas and products already available.

### **Aims**

- To provide pupils with the opportunity to investigate and evaluate products, considering their uses and users.
- To give pupils the confidence to engage in an increasingly technological world.
- To teach pupils the skills and knowledge to design and make high-quality products for different users.
- To evaluate and test their ideas and products to see if they have been successful in their design.
- To encourage pupils to have a greater understanding of nutrition and learn a range of food preparation skills.

### **Progression through school**

#### Foundation Stage

- In Foundation stage teachers use the Early Years Foundation Stage Curriculum to support their teaching.
- Design and Technology is covered through 'Understanding of the World: Technology' and also 'Expressive arts and design'.
- They are given the chance to explore different technological toys and look at how they can make them work.
- They can use different construction materials to build, and they can select tools and techniques to assemble and join materials.
- Nutrition is constantly reinforced and children join in with baking and tasting different foods regularly.

#### Key stage 1 and 2

- The National Curriculum for Design and Technology (Programmes of study) 2015 is followed.
- Teachers use the Cornerstones planning as the main base for their teaching. Each teacher selects the Imaginative Learning Projects (ILP) for their class. Each project has a main curriculum focus but also links to the programmes of study for other areas of the curriculum.

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- At the beginning of the school year a 'Detailed Coverage Checker' in Cornerstones, is generated linked to the year group ILP's. This ensures that the programmes of study are being covered, and highlights which will need to be covered discreetly.
- As pupils progress through KS 2, there is an expectation that they will work more independently, coming up with their own design ideas and thinking about the best materials to make designs from. Pupils should also produce designs with greater accuracy and they should be able to adapt and evaluate their designs as they produce them.

Across both key stages the structure of Design and Technology follows 5 main areas:

- Design: pupils will develop their understanding of how research and design can contribute to innovative, functional products through discussion and annotated sketches or use of computing.
- Make: pupils will learn how to select and use a wide range of tools, materials, textiles and ingredients for cutting, shaping, joining and finishing. Pupils should draw upon knowledge from maths and art and design.
- Evaluate: pupils will investigate and analyse their own and existing products against a set criteria, and consider the implication of design in the wider world.
- Technical knowledge: pupils will develop their understanding of structural design, mechanical systems, electrical systems and computer programming to monitor and control their products. (For example through the use of simple mechanisms such as levers and axles, or using simple electrical components and circuits.)
- Cooking & Nutrition: pupils will develop their understanding of what is meant by a healthy balanced diet and will recognise where different foods come from. They will learn basic preparation techniques such as peeling and grating. In KS 1 pupils will prepare simple dishes that do not require a heat source, whilst KS 2 pupils should know how to prepare and cook a variety of mainly savoury dishes that use a range of cooking techniques.

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### **Assessment**

- Teachers use FLiC (Framing Learning in Classrooms) tracking software to assess each pupil's understanding against the Design and Technology objectives for each year group. Pupils are highlighted as 'working towards', 'at expected' or 'above expected'. Collation and analysis of this data is done each term by the science coordinator and highlights strengths, weaknesses and particular pupils that may need extra support.
- Lessons are differentiated and success criteria is shown so that pupils can all achieve each learning objective.

### **Resources**

- Resources are kept in labelled trays and boxes in the practical area and in the resource room, in the old building.
- Pupils are given the opportunity to use a wide range of materials and resources, including Information Technology.

### **Extra Opportunities**

- Out of school visits are planned, when applicable, to extend and enrich Design and Technology.
- We have a continued link with Warburtons, which enables a class to work in school baking bread. We are repeating this with the Year 3 class annually.
- Enterprise week activities are being linked with DT, whilst encouraging pupils to budget, produce and sell their products.

### **Health and safety**

- They should begin to recognise hazards and take steps to control risks to themselves and others around them. Staff will also take action to reduce risks and hazards.
- Pupils are taught how to safely use tools for practical activities. These can sometimes require extra supervision and include: the use of sharp objects such as wood, saws, nails, needles and knives. These will be used with supervision, and if necessary in small groups or one to one. Cooking appliances will only be used under direct adult supervision.
- Perishable foods must be stored appropriately and refrigerated if necessary. Care must be taken to ensure food is not used after the sell by date.
- Teachers and supporting staff must oversee that cupboards, table tops and the cooker etc., are clean and in working order. They must also ensure that everything is cleaned and put away after use.
- Pupils must wash their hands before and after any contact with food.

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- Teachers must take into account possible food allergies and should be aware of the location of any medication for the allergy.

### **Inclusion (Please also refer to the school's Inclusion Policy)**

We aim to meet the needs of all our pupils by differentiation in our design and technology planning, and in providing a variety of approaches and tasks appropriate to ability levels. This enables pupils with learning and/or physical difficulties to take an active part in learning and practical activities and to achieve the goals they have been set.

**Written by Karen Williams**

January 2019