

# **SS Peter and Paul RC Primary School**



## **Design and Technology Policy**

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## **Ss Peter and Paul RC Primary School – Design and Technology Policy**

### 1. Introduction

Design and technology is a practical subject that allows children to use their creativity and imagination to design and make products that solve problems within a real life context. Children are encouraged to become innovators and are given the opportunity to reflect upon and evaluate their designs. They are also encouraged to improve or refine existing products and apply the creative principles of science to solve practical problems.

### 2. Aims of Design and Technology

- To develop imaginative thinking in children and enable them to talk about what they like and dislike when designing and making.
- To enable children to understand some of the technological processes, products we encounter; explaining how they are manufactured and how they contribute to our society.
- To understand and evaluate how things will work through discussion, drawings and the modelling of ideas.
- To encourage children to select the 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 foster enjoyment, satisfaction and purpose in designing and making.

### Cooking and Nutrition

- To understand and apply the principles of a healthy and varied diet.
- To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.



## Teaching and Learning Style

Design and technology will engage the children in a broad range of designing and making activities which involve a variety of methods of communication e.g. discussion, planning, drawing, making, assembling, writing and the use of ICT. These activities are differentiated to suit different ages and abilities through careful planning and selecting of resources. All children will be encouraged to design and make whilst fostering an independent and resilient attitude; encouraging them to investigate and become their own problem solvers and creative thinkers. Through D&T we gain an understanding of the practical problems faced when designing and making products that fit in with society's aesthetic, social and environmental issues. This allows for reflection and evaluation of present and past design, helping children to become informed consumers and potential innovators.

### 3. Design and Technology Curriculum Planning

Teachers will ensure that they have a clear understanding of the skills, knowledge and understanding of processes which are set out in the national framework. Units of work have been selected to ensure a balance of materials, skills, knowledge and understanding throughout each key stage. We do this through a mixture of whole class teaching and individual / group activities. Within lessons we give the children opportunity to work on their own and to collaborate with others.

### 4. Progression

Children then work towards specific objectives from the skills progression document which is available for all teachers to consult on the staff shared server. This document details the desired skills progression; practical, social and intellectual, in terms of D&T across the key stages.

(See appendix 1 for supporting skills document)

### 5. Assessment

Teaching staff assess the children's work in Design and Technology by making observations whilst the children are working and providing verbal feedback. They record achievements met against the learning objectives for that lesson and next steps are shared with the children. At the end of a unit of work, children undertake a review of their work that focuses upon an evaluation of the finished product. Evidence may be seen in books, on 2-D displays and most commonly through 3-D models and photographs of children's work.

### 6. Reporting to parents

Information on a child's progress made in Design and Technology will be communicated to parents in a report at the end of every academic school year.

#### 7. Monitoring and Evaluation

It is the responsibility of the Design and Technology subject coordinator to monitor the quality of teaching and learning in D&T across the school. The D&T coordinator reviews samples of work across all year groups throughout each cycle and evidence will be documented and kept in the appropriate D&T folder. Feedback from the samples of work will be fed back directly to the teachers delivering the subject and the Head teacher. The role of D&T subject coordinator also involves supporting colleagues in the teaching of this subject, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

#### 8. Resources

Our school has a wide range of resources to support the teaching of Design and Technology across the school. All classrooms have a range of basic resources; the more specialised equipment is kept in a locked D&T trolley accessed by teaching staff only. Resources are transported to classrooms using the D&T trolley.

#### 9. Inclusion and SEND

In all classes there are children of differing abilities and we achieve results by using a range of strategies such as; setting open ended tasks which can have a variety of results, setting tasks which have increasing levels of difficulty where not all children will complete all tasks, providing a range of challenges through the provision of different resources, using additional adults where possible to support individuals or small groups. Staff will ensure activities do not have a gender bias and will encourage the use of multicultural stimuli to enhance design wherever possible. Pupils with SEN/disabilities will be given opportunities to initiate and direct projects with support as appropriate and be involved as equal contributors in class projects and decision making.

#### 10. Cross-curricular links

Mathematics - In Design and Technology, there are many opportunities for children to apply mathematical skills during topic work. Children learn to measure reasonably and accurately and to select and use equipment correctly. They use their knowledge of fractions and percentages to describe and calculate quantities and proportions in real life contexts. They will construct nets of shapes and will also learn about size and shape, using their mathematical knowledge to support their creative and practical skills when designing and modelling.

English - Design and Technology can provide some valuable opportunities to reinforce what the children have been learning about in English lessons. Through discussion, children will learn to justify their views and opinions when evaluating theirs and others designs. Drama and role play plays an important part for children to present a viewpoint or idea about a particular design and develops their understanding of how technology works. This helps to clarify their own designs and reflect on how they may take their designs forward.

Science- Design and Technology encourages children to develop responsibility in following safety procedures when handling equipment. Learning how to prepare and cook a healthy meal is a crucial life skill that will enable children to take an active role providing themselves a healthy diet and others later in life. Children will also understand and use electrical systems in their products for example, series circuits incorporating switches, bulbs, buzzers and motors.

Computing- Wherever possible ICT will be used to support topics in D&T. Children and staff use software to model their ideas and enhance their skills. The children may use draw and paint programmes to create design and make repeating patterns. The use of iPad apps can be used to help with STEM topics such as Scratch and Espresso coding as well as other design Apps already being accessed in school.

Spiritual, Moral, Social and Cultural Development – D&T offers children the opportunity to work collaboratively with each other in lessons which supports their social development and teaches the expectations of how we work together. This allows children to discuss their ideas and feelings about their own work and the work of others. Children develop respect for others and gain a better understanding of their own skills. They learn how to respect the environment and for the Health and Safety of themselves and others. Children learn to develop a cultural awareness; understanding and appreciating the value of differences and similarities.

#### 11. Health and Safety

- All adults leading D&T lessons/activities should ensure that they have read and understood the D&T Health and Safety section of the policy.
- D&T equipment is not left out and unsupervised, floors and work surfaces are kept clean and tidy and all tools used must be of good quality, in good condition and stored safely.
- Direct safety instructions should be given to children each time they undertake a design and technology activity.
- Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.

When working with food:

- An adult will be required to supervise activities involving cooking and food handling/preparation.

- When working with food all children should follow personal hygiene guidance (tie hair back and wash hands)
- Teaching staff taking part in any food activity should follow the same procedures as the children with regard to any rules regarding personal hygiene.
- Teaching staff should check the dietary requirements of the children in their class to identify any foods that should not be available to specific children.
- Any perishable food should be stored in a fridge.
- Glass items should never be used.
- Ensure that all children use their own equipment when tasting food.
- All teaching staff and supporting staff are made aware of existing care plans which detail in full any medical records, allergies, health concerns that may affect a child's ability to participate in a topic. Additional letters will be sent to parents ensuring that their child will be able to take part in a topic
- An up-to-date collection of risk assessment documents are accessible in the main staffroom and D&T cupboard so relevant staff members can look at the resources and materials they will be using when planning a topic and make the correct judgements regarding the health and safety of all pupils and staff members.

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