## St. Paul's CE Primary School



## Design and Technology Overview

# "Design creates culture. Culture shapes values. Values determine the future."

### **Robert L. Peters**

#### **Rationale**

At St. Paul's CE Primary School, it is our intent that the Design Technology curriculum is giving the children appropriate subject knowledge, skills and understanding as set out in the National Curriculum. It is important that we provide children with the most relevant and life-like experiences throughout their DT journey. The children will be showing a clear learning journey through DT which will be evident through the work in their books. We want the children at St Paul's to share a love of learning throughout their curriculum and we intend this to happen in DT also.

#### Intent

Through our Design Technology curriculum, we intend that our children will enjoy DT and share a love of learning throughout the subject. By the end of their DT journey children will be able to follow routines and they will know and understand the structure of the learning in the subject. They will be able to record their learning journey in their books and this will be available for them to look back on and share memories from different topics. The children will be supported to help them flourish in

their work and we will always be proud of the work children have produced. We intend to design a curriculum that is showcasing our children's mixed abilities and that is tailored to their interests. We intend to give the children at St Paul's the opportunity to explore all areas of DT (Textiles, mechanisms and food technology) to provide a rich and full DT curriculum. DT will be accompanying other subjects and therefore it will be helping to implement learning across the curriculum. We intend for children to enjoy taking part in DT and for children to be excited about their learning journey.

#### **Implementation**

At St. Paul's CE primary school, we work together to build a DT curriculum that accommodates all children and all abilities. We make the DT curriculum exciting and fun for all children to engage in. All DT modules will follow the design, make and evaluate cycle. DT will be rooted with real life, relevant projects which allow children to give their learning meaning. The children will use the key aspects and skills of DT in all areas of the DT curriculum including Food technology, mechanisms and textiles. All teachers will plan and deliver high quality lessons which cover the areas of DT in depth and build on previous learning. Teachers will have a strong understanding of the subject and technical terms before teaching the children. Opportunities for teachers to build on their subject knowledge is available during staff meetings. The DT subject lead attends regular training to aid the staff in the school and be able to understand the skills and knowledge that children need to be able to succeed in DT. All units of work will follow the sequence below. At the end of each unit in every year group, teachers use their own judgement to assess the children's DT skills. Peer assessment and whole class feedback is also used as an assessment technique.

#### Design:

Children will be using research to develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. We are encouraging children to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer aided design.

#### Make:

Children will be given choice and freedom when choosing materials and tools that they will be using for their project. They will be able to select from and use a wide range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing as well as chopping and slicing) accurately. Select from and use a wider range of materials, ingredients and components, including construction materials, textiles and ingredients, according to their functional properties, aesthetic qualities and, where appropriate taste.

#### **Evaluate:**

To evaluate, children will be able to assess and successfully evaluate their work and designs against their own design criteria. DT should be taught to a high standard, there should be evidence of each of the stages of the design process recorded in books, by taking photos of 3D models, drawings, mock-ups, evaluation sentences. The DT books should show a clear progression through the key stages. Children will be investigating and analysing a range of existing products. They will be understanding how key events and individuals in design and technology have helped shape the world.

#### Technical knowledge:

Children will become familiar with and be able to use the technical terms and knowledge from the National Curriculum. Children will be able to apply their understanding of how to strengthen, stiffen and reinforce more complex structures. They will understand and use mechanical systems and electrical systems in their products. They will understand some of the ways that food can be processed and the effect of different cooking practices (including baking and grilling).

Key skills and knowledge for DT have been mapped across the school to ensure progression between year groups. The context for the children's work in DT is also well considered and children learn about real life structures and the purpose of specific example, as well as developing their skills throughout the programme of study. DT lessons are also taught as a block so that children's learning is focused throughout each unit of work.

#### Impact

Children will have clear enjoyment and confidence in Design and Technology that they will then apply to other areas of the curriculum. Through carefully planned and implemented learning activities the pupils develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. Pupil's skills and knowledge are assessed ongoingly by the class teachers, throughout lessons. DT is monitored by regular book looks, pupil voice and staff meetings for CPD. DT at St Paul's is very inclusive and teachers ensure that lessons all lessons are accessible for all children in the classroom. We encourage the children and this builds trust between the teacher and the children ensuring that they can be creative within their work. We hope that children enjoy their DT journey and flourish along the way.