



## Design and Technology

*Design and Technology at St Paul's builds on children's natural instinct to wonder about and explore the world around them, helping them to flourish in their journey to the fullness of life.*



### **Our Vision for Design and Technology**

Inspired by God's love for us, we illuminate the goodness in others, we care for and protect His children and reach out to help others flourish in their journey to the fullness of life.

Our aim at St. Paul' CE Primary School is to develop creative, technical and imaginative thinking children and to develop confidence to participate successfully in an increasingly technological world. We enable children to talk about how things work and to develop their technical knowledge. We aim to enable children to apply a growing body of knowledge, understanding and skills in order to design and make prototypes and products for a wide range of users. Children select appropriate tools and techniques when making a product, whilst following safe procedures. Children develop an understanding of technical processes technological processes and products, their manufacture and their contribution to our society. We aim to teach and foster enjoyment, satisfaction and purpose in designing and making things.

**Rationale – Why we do what we do...** Over the past few years, St Paul's have found like nationally, that there has been a difference in the language skills of children as they enter in Reception. We have also noted a marked difference in the children's levels of independence, resilience, ambition (skills for life), this along with a need to promote a more deep rooted love of reading, has prompted us to shape our curriculum with greater emphasis in these areas.

After completing a Design and Technology audit with pupils and staff, we found that children really enjoy their design and technology lessons. However, some children did not think they could transfer previously taught art and DT skills into different pieces. The children also wanted to use a larger variety of mediums and tools.

As a result, we are now using sketchbooks so that children can see the progress they have made and the skills that they have learnt, that they can transfer into different Art and Design projects.

### **How do we enable children to learn more and retain more?**

#### **Timings and timetable:**

In Reception, Design and Technology is taught as part of the ELG of 'Expressive Arts and Design' and Physical movement. It is taught through whole class, small group and 1:1 learning with a mixture of adult-led learning and some child-initiated learning with sustained shared thinking. Across the rest of the school, Design and technology is taught as a discreet subject. It is taught weekly for three half terms of the year, with Art lessons being taught the remaining half terms. In order for children to be excited and inspired, it is important to us that they are fully immersed in the learning and can make links to other knowledge acquired—within Art and Design and across the curriculum, rather than seeing learning in isolation.

#### **Design and Technology— An Overview:**

To ensure high standards of teaching and learning is design and technology, we implement a curriculum that is progressive throughout the whole school. Design and technology is taught as part of a half termly topic, focussing on knowledge and skills stated in the National Curriculum. At St. Pauls, we ensure that design and technology is given the same importance as the core subjects, as we feel that is important in enabling all children to gain 'real life' experiences.

The Design and Technology curriculum at St. Pauls is based upon the National Curriculum and a well resources scheme called Kapow, which provides a broad framework and outlines the knowledge and skills taught in each key stage. Teachers use knowledge organisers to plan their design and technology lessons suitable to their class interests and what they want to learn about. The progression document ensures the curriculum is covered and the skills knowledge taught is progressive from year group to year group.

At St. Paul's CE Primary School, each of our designers has their own sketch book, in which they can record ideas, practise new techniques and to further refine their skills. These sketchbooks give our designers the opportunity to study an existing project, create a constructive and reflective critique of this work and to use these ideas to develop their own piece of related art work, enabling pupils to show perseverance and dedication to complete any project to the best of their ability. Projects form key areas, such as, structures, mechanisms, textiles, electrical systems, digital world and cooking are studied throughout the school to give our pupils a balanced knowledge and understanding of DT concepts and skills.

This is how we support and ensure access for all children:

- Small group/1:1 adult support given where required.
- Ensuring that a range of equipment and resources are available to ensure success for all pupils (e.g. different sized paintbrushes or paper, additional templates etc). For all other children:
- We use teacher and self-assessment to quickly identify any child who requires additional support in specific skills.
- Pupils then receive additional support or resources.

This is how we challenge:

- Differentiation planned from the very start of the lesson.
- Small group work to further challenge.
- Ask children to present their project.

Enrichment is an important part of the design and technology curriculum.

School visitors and trips are facilitated where appropriate to enhance the pupils' understanding and skills further. Through parent enrichment days we encourage parents to support their child's design and technology skills.

### **Assessing Outcomes in Design and Technology**

Due to the nature of this curriculum area, Design and Technology monitoring takes various forms. A key component of this is pupil voice; school leaders use pupil voice as an effective tool to ascertain the pupils' ability to express themselves through a range of different mediums. Sketchbook monitoring throughout all year groups also takes place once a term to compliment this, allowing leaders to ensure our children have the opportunity to develop their skills fully and showcase their talents. Examples of our designers work is exhibited throughout the school, both on classroom, communal displays, and on online platforms such as Tapestry and Seesaw.

### Assessing Outcomes in Design and Technology

In Reception, all children have a personalised 'Learning Journey' using Tapestry, which is used to record learning from all areas of learning across the year. Teachers use this evidence to ensure that all children are making progress and attaining well. Where children are not meeting expected standards, teachers provide additional support where appropriate.

On entry to Year 1, children discover and learn more about Design and Technology. On entry to Year 2, all acquired knowledge and experimentation of skills linked to Design and Technology is recorded in sketchbooks. To ensure that all children make progress in Design and Technology, Teachers and pupils use an evaluation process (1. Quantity and quality of participation, 2. Progression 3. Attainment and ability) in sketchbooks to assess ongoing attainment and progress.

Due to the subjective nature of design and technology children are encouraged to choose medium that enable them to meet the objective. In some circumstances (for example clay or charcoal), children may need to choose a medium that supports prevention of triggers. Where mobility is challenging, different size mediums or technology is used to support. SEND children are encouraged to take ownership of their own work and celebrate their achievements. Throughout their sketchbooks, there should be clear progression of skills and expression in any medium they have chosen.

The Design Technology subject leader completes regular monitoring of attainment and progress through a combination of pupil voice, topic journey monitoring and matching actual outcomes to intended outcomes as identified in the Art and Design Technology 'National Curriculum'. From this monitoring, key actions are given to the teacher and are re-visited frequently. The design and Technology subject leader then has a formal meeting with senior leaders to discuss outcomes and next steps. The Curriculum Senior Leader uses the information given to them to hold Governor sub-committee 'Curriculum and Achievement Meetings' each half term.

### Enrichment

Enrichment opportunities within and across all areas of the curriculum are important to St Paul's to help develop the children's skills for life. Our research shows that although lots of children have been exposed to visits, the quality of these visits vary. Therefore, our enrichment opportunities for Design and Technology provide a clear purpose with plenty of opportunities for extension and challenge. They are relevant, age appropriate and inclusive to all.

Year Groups	Enrichment Opportunity	Term of Enrichment
Rec	Opportunity: Building park Purpose: Children to build their own park using natural resources ; linked to topic of Percy the Park keeper	2
1	Opportunity: Exploring & designing stain glass windows in Hereford Cathedral Purpose: Children to explore patterns and materials in the Hereford Cathedral.	2
2	Opportunity: Sculptures from around the world Purpose: Children to explore different skills and techniques used to create sculptures use clay or mod roc to create their own.	2
3	Opportunity: Making soup Purpose: Exploring food – understanding where food comes from and seasonality.	2
4	Opportunity: children to explore stain glass windows in the monastery Purpose: links into their topic and allows children to explore how stain glass windows were created many years ago.	2
5	Opportunity: Supper club Purpose: Parent engagement and children developing their cooking skills.	2
6	Opportunity: Mini Money Makers Purpose: For children to design, create, evaluate and sell their products to create the most amount of profit.	1

