

St. Peter's Catholic Primary School



Design and Technology Policy

Date: July 2023 Review Date: July 2024

At St. Peter's Catholic Primary School, Jesus Christ and the Gospel values are at the centre of all of our teaching and relationships with children.

Introduction

At St Peter's Catholic Primary School, we provide high-quality design and technology experiences, where the pupils develop skills and understanding on how to design and plan out their creations. Design and Technology involves applying knowledge and skills when designing and making products. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. Undertaking design and technology activities in school will give our pupils opportunities to use a range of materials and processes; to explore, evaluate and amend ideas. This is in line with the National Curriculum 2014.

Children at St Peter's Catholic Primary school will:

- Produce designs and plans, listing tools/materials needed
- Explore and evaluate a range of existing products
- Design and make purposeful products and to evaluate the effectiveness of the making process
- Evaluate their work throughout the making process, suggesting alternatives when necessary and evaluate the final product in terms of what is and is not working
- Become increasingly more accurate in the measurement, marking, cutting and combining of materials
- Recognise safety implications for themselves and others
- Demonstrate safe use of a range of equipment
- Understand and apply the principles of a healthy and varied diet

Objectives of the Music Curriculum

Design and Technology is a foundation subject in the National Curriculum. The fundamental skills, knowledge and concepts of the subject are set out in National Curriculum 2014.

Early Years Foundation Stage

- Manage their own basic hygiene and personal needs
- Use a range of small tools, including scissors, paint brushes and cutlery
- Begin to show accuracy and care when drawing
- Know some similarities and differences between things in the past and now
- To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used

End of Key Stage 1

Design

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, information and communication technology

Make

- Select from and use a range of tools and equipment to perform practical tasks; cutting, shaping, joining and finishing
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

Technical Knowledge

- Build structures, exploring how they can be made stronger, stiffer and more stable
- Explore and use mechanisms in their products

Cooking and Nutrition

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from

End of Key Stage 2

Design

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individual or groups
- Generate, develop model and communicate their ideas through discussions, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- Select from and use a wider range of tools and equipment to perform practical tasks accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- Investigate and analyse a range of existing products
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Understand how key events and individuals in design and technology have helped shape the world

Technical Knowledge

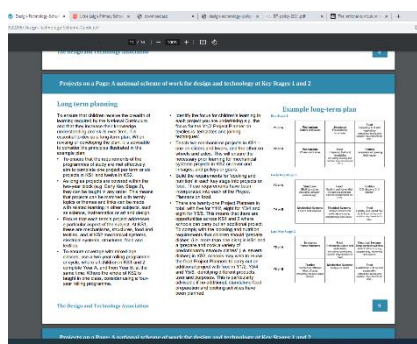
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products
- Understand and use electrical systems in their products
- Apply their understanding of computing to program, monitor and control their products

Cooking and Nutrition

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

How we teach Design and Technology

Through creativity and innovation, design and technology continue to shape our lives. Using an activity-focused approach, a high-quality design and technology education should give pupils opportunities to create, innovate, design, make and evaluate a variety of well-crafted products. As a school, we want all pupils to think innovatively, to question and explore the practical world around them and to develop a positive, growth mind-set approach to their learning. Using project planners, practical tasks are planned by the class teacher to develop and practise particular skills and acquire knowledge. Where appropriate they are also linked to other subjects to encourage children to appreciate the importance of using different skills in conjunction. As a school, we follow the 'Projects on a Page' scheme, which ensures all of the key skills and areas are being taught in line with the National Curriculum. This is split into five areas which are covered at least twice during the academic year. These skills are: mechanisms, structures, textiles, electrical systems and food. To enrich these skills, as a school we block out days to focus solely on design and technology, to allow pupils the time to think creatively and to have the time to develop the specific skills they are working towards. To ensure we cover the five areas, we follow 'Project on a Page' long term planning that has been broken down into two year cycles.



Health and Safety

Safety is of paramount importance in Design and Technology. It is the teacher's responsibility to be aware of safety issues in all Design and Technology activities by:

- Providing a safe working area
- Teaching and implementing safety rules and good practice, including hygiene
- Ensuring the safe and correct usage of tools and materials
- Ensuring working areas are kept clean and tidy
- Considering storage of partially completed work
- Ensuring the correct disposal of waste

The teacher is responsible for ensuring that children are adequately supervised when using tools and that other adults working in the classroom understand safety rules and maintain rigorous safety standards. Safety rules and safety issues will be taught to all pupils within each project planners.

Resources

We provide a variety of resources to teach Design and Technology. This is to ensure our pupils are equipped with the resources required to progress through the curriculum. We keep our resources in the DT cupboards, which is accessible and organised based upon the skills that they pupils will be focusing on.

Assessment in DTc

Teachers assess pupil's work in Design and Technology by making ongoing informal judgements, as they observe and record them during lessons. On completion of a task, the teacher assesses and reviews the task and will offer verbal feedback, if required. Using 'Projects on a Page' enables you to check what pupils have learnt and determine whether they are on track to meet National Curriculum expectations by the end of each key stage. Any evidence collected from each task must be evidenced in our Topic books, where class teachers and the DT subject leader will monitor the pupil's progress and achievements. The subject leader will also collect pupil voice to collect more evidence about our successes and areas for development.