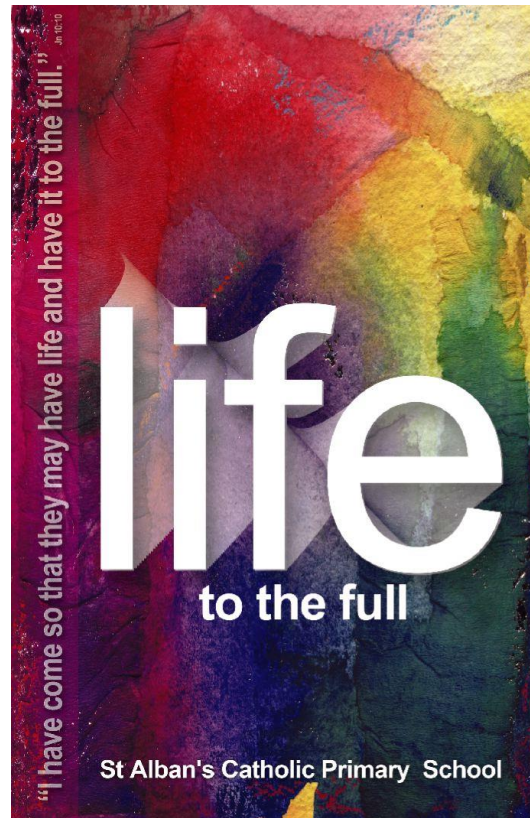


**St Alban's Catholic School**

**Design Technology Policy**



**Vision Statement**

**'I have come so that they may have life and have it to the full'.**

**St John's Gospel**

At St Alban's we intend that our children will be taught Design and Technology in a way that ensures progression of skills, and follows a sequence to build on previous learning. Our children will gain experience and skills of a wide range of formal elements of design and concepts of technology in a way that will enhance their learning opportunities, enabling them to use design and technology across a range of subjects to be creative and solve problems, ensuring they make progress.

## **Aims**

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook.

## **Planning**

### **Early Years**

Our children in Early Years will undertake investigative and skills based tasks during independent working time. The creative area will be available to them on a daily basis and they will be encouraged to undertake focused practical tasks through directed and self-initiated stimuli. They will be provided with resources based on topics within the focus of the classroom and will be encouraged to design and develop ideas independently. Children in Early Years explore a range of design technology activities alongside their parents and carers on Fun Friday.

### **Key Stage 1**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in the process of designing and making. They should work in a range of relevant contexts (for example, the home and school, gardens, the local community, industry and the wider environment). When designing and making, pupils should be taught to:

## **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 (for example, 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 (for example, levers, sliders, wheels and axles), in their products.

Key Stage 1 children will undertake one unit of work per term. They will also have opportunities during Design and Technology lessons to develop their own ideas and generate designs independently. Progression of Design and Technology skills will be monitored by staff formally and informally with references to expectations from the National Curriculum. Planning will follow Medium term planning linked to National Curriculum guidelines.

## **Key Stage 2**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in the process of designing and making. They should work in a range of relevant contexts (for example, the home, school, leisure, culture, enterprise, industry and the local and wider environment). When designing and making, pupils should be taught to:

### **Design**

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

- Generate, develop, model and communicate their ideas through discussion, 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 (for example, cutting, shaping, joining and finishing), 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 (for example, gears, pulleys, cams, levers and linkages)
- Understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors)
- Apply their understanding of computing to program, monitor and control their products.

### **Cooking and Nutrition**

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Cookery enable's children to understand the issues facing themselves and others, create and modify recipes to meet these needs and to cook and evaluate a variety of dishes. Consideration is given to ensure that the projects and recipes used reflect our national healthy eating priority, facilitating a whole school approach to health, education and creativity.

#### **Pupils should be taught to:**

##### **Key stage 1**

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

##### **Key stage 2**

- 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.

### **Assessment and record keeping**

- The Subject Co-ordinator will keep a photographic portfolio of designs, drawings, pictures and finished products. These can be used for assessment purposes and for monitoring progression through year groups.
- Floor books will be used by each year group to document the progress in DT. This can be images, prototypes or children's quotes/evaluations. These can be used to assess the progression throughout the year and to share with the co-ordinator for monitoring.
- Children will be issued with a DT exercise book in Year 1 which will follow them throughout the school to show progression. This will also allow children to reflect and build on the skills and learning they have previously learnt.
- A display of design and technology work will be set up on the corridor of the school. This will showcase the progression of DT throughout the year groups. This will include a Year Group overview sheet explaining to the child the expectations and outcomes of each topic, drawings, patterns, quick models and final products to demonstrate to children, parents and visitors the whole Design and Technology vision and process.
- One staff meeting per year will be held for agreement trialling. Teachers will be asked to identify a child working at a specific level and bring some examples of their work. Examples of this work, including photographs, will be kept for the school portfolio.

### **Inclusion**

At St Alban's Catholic School, we expect all children to participate in Design and Technology projects. Specialist equipment and support will be sought and provided for any children who need them in order that they will be included within and have access to tasks in Design and Technology.

### **Resources**

- All resources for Early Years are held within the Early Years classrooms. Resources for Key Stage 1 and 2 are stored in the main stock cupboard. Within Early Years, the classroom has a creative area containing renewable and interchangeable resources including a selection of paper, plastics and metals. These resources will be renewed and replaced as appropriate, with consideration given to topics within all areas of learning across the Foundation Stage Profile. Children are encouraged to bring into school recycled materials to use in the creative area. The outdoor classroom will contain opportunities for working on Design and Technology projects, including construction kits, sand and water. Resources will

be made whenever possible linked to projects which are self-generated by the children within the Early Years.

- A limited range of materials and tools will be provided for Key Stage 1 and 2 children within classrooms including: paper, card, hole punches, scissors.
- Food resources, tools and equipment are kept in the upper room.

### **Health and Safety**

Teachers will always teach the safe use of tools and equipment and insist on good practise.