

# ST EDMUND'S CATHOLIC PRIMARY SCHOOL

*Consideration, Care and Courtesy*

## DESIGN TECHNOLOGY POLICY

### PURPOSE OF STUDY

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

### 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.

### ATTAINMENT TARGETS

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

### SUBJECT CONTENT

#### **Key stage 1**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, 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.

# ST EDMUND'S CATHOLIC PRIMARY SCHOOL

*Consideration, Care and Courtesy*

## **Key stage 2**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative 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 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.

# ST EDMUND'S CATHOLIC PRIMARY SCHOOL

*Consideration, Care and Courtesy*

## **PROCEDURES**

### **PLANNING & ORGANISATION**

Design Technology is a foundation subject in the National Curriculum which is divided into 2 main sections:

- a) Designing and Making, which includes planning and evaluation.
- b) Knowledge and Understanding, which includes health & safety.

Long Term and Medium Term planning is primarily undertaken using QCA Scheme of Work  
At KS1 the short term planning is done individually and delivered by the class teacher to their class.

In Design Technology the children will work individually, in groups, and as a whole class. The group work will be of mixed ability and the children will be encouraged to work co-operatively and develop interpersonal skills.

At KS1 Design Technology is taught for 1 hour per week.

At KS2 Design Technology is taught with Art for 1.5 hours per week.

### **RESOURCES**

Materials and tools for KS1 are kept centrally in the stock room.

Some materials and tools for KS2 are stored in the DT/Art room.

The more specialised materials and tools are stored centrally in the stockroom.

### **RECORDING & ASSESSMENT**

The child's development of skills and understanding will be recorded on individual records of achievement. Assessment of progress will be on-going by the teacher throughout the year and will be carried out by observing, photographs and evaluating completed projects.

The children's planning and designing work will be recorded in their Design and Technology workbooks.

### **EQUAL OPPORTUNITIES**

Experience of Design Technology is an entitlement of all children and is essential to enable them to achieve their full potential as individuals and members of society. The needs of all children will be catered for through appropriate provision.

### **HEALTH & SAFETY**

Prior to using tools and equipment, children will be taught how to handle and use them safely and they will be kept under observation when using them. They will be taught health and hygiene rules when handling food.