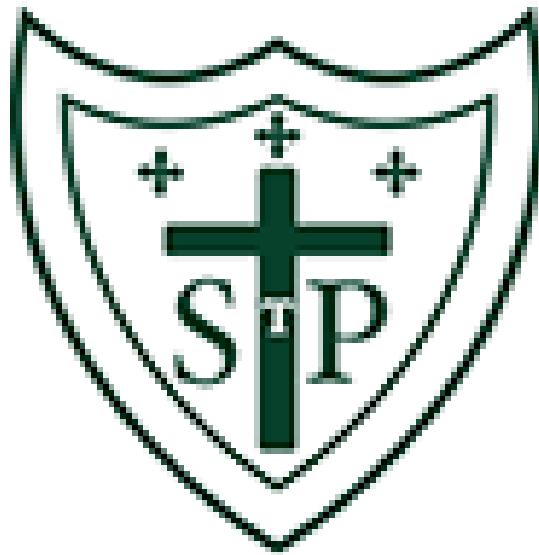


# **ST PATRICK'S CATHOLIC PRIMARY SCHOOL, A VOLUNTARY ACADEMY**



## **Design Technology Policy**

Policy Updated: Spring 2018

Adopted by Staff and Governors: Spring 2018

Date for Review: Spring 2020

## **Design and Technology in the Primary Curriculum**

‘The key aim of design and technology is to enable pupils to learn how to contribute towards, and intervene creatively and constructively to improve the world in a rapidly changing technological society. It should enable pupils to become discriminating citizens and customers, and to be able to contribute to their home, community and industry; by having a better understanding of products and the associated values; by developing specific technological understanding, including the application of ICT; and by fostering the design and manufacturing skills needed to produce quality practical solutions to real problems. Design and technology fosters learning through doing and provides an excellent basis for enhancing and consolidating work in other areas of the curriculum.’

### **Implementing Design and Technology**

#### Time allocation

It is for each class teacher to decide when they will deliver their DT lessons but the following recommendations are given;

There is no statutory time allocation for DT and it is for each school to decide upon the time allocation for each key stage and year group.

#### Recommended activities

Units of work include the three types of activity specified:

- ☐ Investigate, disassembly and evaluative activities;
- ☐ Focused practical tasks;
- ☐ Design and making assignments.

#### Links with other subjects

Wherever possible a cross curricular approach to planning will be positively adopted and linked to topics.

St. Patrick’s Catholic Primary School aims to:

- ❖ Give all children at St. Patrick’s access to all areas of design technology.
- ❖ Deliver design technology as a continuous and progressive experience throughout the Foundation Stage, Key Stage 1 and Key Stage 2.

#### Teaching and learning

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.

## Learning Objectives

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

## Key Stage 1

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.

### Cooking and Nutrition

☐ use the basic principles of a healthy and varied diet to prepare dishes

☐ understand where food comes from.

## Key Stage 2

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

- ☐ 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, Recording and Reporting

The class teacher will record pupils' progress against the objectives in the National Curriculum. This assessment is used to support the teaching and learning and to assess the progress of the children. Some evidence is to be kept to support the assessment; this may include a description of the context, an explanation of how pupils completed the task, photographs, discussion, saved work and printouts of work and also teacher observations.

Progress in each of the areas will be assessed throughout the year and a final level awarded in the Summer Term. Pupils also have the opportunity to self and peer-assess their own and others' work. A child's D&T achievement and progress is reported in the annual report to parents / guardians at the end of the school year.

### Monitoring and Review

The D&T co-ordinator will monitor the effectiveness of the policy in the following ways:

- Observation of D&T lessons
- Collaborative planning and checking of topic overviews to ensure D&T is being embedded.
- Discussions with staff and pupils.

All staff will take responsibility to ensure that the policy is implemented within their own class. The head teacher has overall responsibility for ensuring that the policy is implemented.

This policy will be reviewed regularly by the D&T co-ordinator. Throughout the school year, staff are encouraged to feedback information about equipment and schemes of work to the co-ordinator.

### **Health & Safety**

Whilst Health and Safety considerations & risk assessment remain the primary responsibility of the teacher in charge, the children should be taught to;

☐ Reduce risks through responsible behaviour and use good practice to avoid hazardous situations developing.

☐ Abide by simple safety rules when using tools or equipment.

☐ Consider and recognise hazards in their proposed ways of working, and take action to minimise them.

☐ Assess the risk of hurt or damage posed by evaluating their own and other designer's products and suggest remedial action.

☐ Store tools and materials with due regard, and organise their working environment / practices in a safe way.

## **Inclusion**

It is expected that all children will be given the opportunity to learn in a creative and encouraging learning environment which encompasses a range of learning and teaching styles. It is hoped that this approach will motivate and support children's learning at all levels including the Gifted and Talented, EAL and children identified with a Special Educational Need (SEN).