

# Design Technology Policy

### 1. Aims & Objectives

Design and technology helps to prepare pupils for the developing world. The subject encourages pupils to become creative problem-solvers, both as individuals and as part of a team. Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues. Design and Technology helps all pupils to become discriminating and informed consumers and potential innovators. It should assist pupils in developing a greater awareness and understanding of how everyday products are designed and made The aims of design and technology in our school are:

\* To develop imaginative thinking in pupils and to enable them to talk about what they like and dislike when designing and making;

\* To enable pupils to talk about how things work, and to draw and model their ideas;

\* To encourage pupils to select appropriate tools and techniques for making a product, whilst following safe procedures;

- \* To foster enjoyment, satisfaction and purpose in designing and making;
- \* To use ICT software to assist our designing and learning.

### 2. Teaching and Learning Style

Laurel Avenue Community Primary School uses a variety of teaching and learning styles in design technology lessons. Our principal aim is to develop the pupils' knowledge, skills and understanding in design technology. We ensure that the act of investigating and making something includes exploring and developing ideas, and evaluating and developing work. We do this best through a mixture of whole-class teaching and individual/group activities. Teachers draw attention to good examples of individual performance as models for the other pupils. They encourage pupils to evaluate their own ideas and methods, and the work of others, and say what they think and feel about them. We give pupils the opportunity within lessons to work on their own and collaborate with others, on projects in two and three dimensions and on different scales. Pupils also have the opportunity to use a wide range of materials and resources, including Computing.

We recognise the fact that we have pupils of differing ability in all our classes and so we provide suitable learning opportunities for all pupils by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting common tasks that are open-ended and can have a variety of responses;
- *setting tasks of increasing difficulty where not all pupils complete all tasks;*

- grouping pupils by ability and setting different tasks for each group;
- providing a range of challenges with different resources;
- using additional adults to support the work of individual pupils or small groups.

## 3. Design Technology Curriculum Planning

Design Technology is a foundation subject in the National Curriculum. At Laurel Avenue Community Primary School, we use Chris Quigley's 'Essentials Curriculum' as the basis for our curriculum planning in design technology. We use the levelled skills and objectives, linking them to the topics for each Key Stage; Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2.

*We carry out the curriculum planning in design technology in three phases: long term, medium term and short-term.* 

Our long-term plan maps out the themes covered in each term during each Key Stage.

Our medium-term plans give details of each unit of work for each term. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term.

We plan the activities in design technology so that they build upon the prior learning of the pupils. While we give pupils of all abilities opportunity to develop their skills, knowledge and understanding, we build planned progression into the scheme of work, so that there is an increasing challenge for the pupils as they move up through the school.

There are a range of areas within design technology and each have specific skills, which need to be taught at different levels. The pupils then have the opportunity to apply these skills through a project, led by themselves.

### The Foundation Stage

We encourage creative work in the Foundation Stage as this is part of the Foundation Stage of the National Curriculum. We relate the creative development of the pupils to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for pupils aged three to five. The range of experience encourages pupils to make connections between one area of learning and another and so extends their understanding. We provide a rich environment in which we encourage and value creativity. Pupils experience a wide range of activities that they respond to, using the various senses. We give them the opportunity to work alongside pupils and other adults. The activities that they take part in are stimulating, challenging, imaginative and enjoyable.

# 4. The contribution of Design Technology to teaching in other curriculum areas Literacy

Design technology contributes to the teaching of English in our school by encouraging pupils to ask and answer questions about the starting points for their work. They have the opportunity to compare ideas, methods and approaches in their own work and that of other pupils, and to say what they think and feel about them. Pupils are able to apply and develop key reading and writing skills through research into the life and work of designers and starting points for their work. A key part of design technology is the planning and evaluation of products and pupils use literacy skills to list, annotate and explain.

## **Mathematics**

Design technology contributes to the teaching of mathematics in our school by giving opportunities to develop the pupils' understanding of properties of shape and measures through work in three dimensions, applying skills to real life contexts and problem solving situations. This reflects and supports the whole school approach to the pupils as 'mathletes' and in recognising and applying skills and understanding from mathematics to other areas of the curriculum.

## Computing

We use ICT to support design technology teaching when appropriate. Pupils use software to explore shape and ideas for their work. Older pupils collect visual information to help them develop their design ideas and using digital cameras to record their projects. Pupils use the internet to find out more about famous designers. Microbit and Lego Can Do hardware and software is used to support teaching and learning of computer controlled technology.

# Personal, social and health education (PSHE)

Design technology contributes to the teaching of some elements of personal, social and health education and citizenship. The pupils discuss how they feel about their own work and the methods and approaches used by others.

# Spiritual, moral, social and cultural development

The teaching of design technology offers opportunities to support the social development of our pupils through the way we expect them to work with each other in lessons.

Groupings allow pupils to work together and give them the chance to discuss their ideas and feelings about their own work and the work of others. Their work in general helps them to develop a respect for the abilities of other pupils and encourages them to collaborate and co-operate across a range of activities and experiences. The pupils learn to respect and work with each other and with adults, thus developing a better understanding of themselves. They also develop an understanding of different times, cultures and religions through their work on famous designers and engineers.

# 5. Teaching Design Technology to pupils with Special Educational needs including the More Able

At Laurel Avenue Community Primary School we teach design technology to all pupils, whatever their ability. Design technology forms part of the school curriculum policy to provide a broad and balanced education to all pupils. Through our design technology teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected standards. Pupils who display particular skills within design technology are identified and listed in the school's 'More Able' register. These pupils are closely tracked and are given opportunities to work with skilled staff and participate in wider areas of study.

## 6. Assessment and Recording

We assess the pupils' work in design technology whilst observing them working during lessons. Teachers record the progress made by pupils against the learning objectives within the Chris Quigley Milestones. Each area of learning is assessed by the teacher at the end of the unit. The pupils are also asked to self-reflect on their learning and the skills achieved. At the end of each term a judgement is made by teaching staff within each of the three areas of learning, as to whether each child is working at a basic, advancing or deep level. Numerical scores ranging from 1-6 are given, allowing progress as well as attainment to be closely monitored.

At the end of each Milestone we make a judgement against the National Curriculum expectations as to whether they have met national expectation, have not met national expectation or have exceeded national expectation.

This information is used by the teacher to make an annual assessment of progress for each child, as part of the child's annual report to parents. This information is also passed on to the next teacher. The art and design subject leader monitors standards of pupils' work. This demonstrates what the expected level of achievement is in art and design in each year of the school.

# 7. Resources

We have a wide range of resources to support the teaching of design technology across the school. All our classrooms have a range of basic resources, but we keep the more specialised equipment in central areas around school. Hardware such as Lego Can Do is borrowed from Durham County resources and taught alongside IT advisors.

#### 8. Design Technology Events

Termly design technology weeks National Science and Engineering week Egg decorating. Bright Sparks worked with Design Technology Students from Durham University.

#### 9. Monitoring and review

The monitoring of the standards of pupils' work and of the quality of teaching in design technology is the responsibility of the art and design subject leader. The work of the subject leader also involves supporting colleagues in the teaching of design technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. A school governor with a responsibility for design technology, provides challenge and monitors teaching and learning through regular meetings with the coordinator and attending art sessions.

#### 10. Equal opportunities

The teaching of design technology is in accordance with the present policy for Equal opportunities, and is an ideal vehicle for delivering the message of equality and diversity.

Signed: Chair of Learning, Teaching and Achievement Committee

Date:

Signed: Co-ordinator

*Reviewed: April 2018 Review Date: April 2021*