

Wallsend Jubilee Primary
School
Design and Technology
Policy



Updated: January 2017

1. The purpose of this policy is to provide information and guidance for the teaching of Design and Technology throughout the school, in order to ensure a planned delivery based on the continuity and progression. It will be implemented by all teachers and reviewed annually by the Design and Technology co-ordinator.

1. Aims and Objectives

1.1 As stated in the National Curriculum: 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.

1.2 In accordance with the revised National Curriculum 2014, at Wallsend Jubilee Primary School we aim 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.

1.3 At Key stage 1, our pupils are 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.

1.4 At Key stage 2, our pupils are 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.
- 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

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. Instilling a love of cooking in pupils will also open a door to

one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

2 Implementing Design and Technology

2.1 The scheme of work is planned to ensure that a balance of materials, skills. Knowledge and understanding are taught progressively each year. The skills are identified by the National Curriculum and the aspects of DT will be taught through our theme approach.

D.T. draws upon children's knowledge and skills in other subjects particularly Science, Computing, Mathematics, Language, Art and Personal and Social Education. Opportunities should be given to develop and apply their computing skills through the study of Design and Technology. Children should be encouraged to obtain, prepare, process and present information, and to communicate ideas with increasing independence. D.T. can be made relevant by using interesting contexts for children's activities. Where possible, children design and make responding to real needs and opportunities, or those they can relate to e.g. using a story as a starting point.

3 Differentiation and Special Needs

3.1 Owing to the nature of D.T. it will engage the children in a variety of activities which involve many methods of communication. It can embrace speaking, drawing, assembling, making and using. Activities may be differentiated where it is practical and appropriate to do so.

4 Equal Opportunities

4.1 Children bring different experiences and talents to D.T. The qualities they already possess should be valued whilst opportunities for widening their experiences need to be created. We are committed to enabling each child to access the whole curriculum. Relevant support and differentiation is provided for children as appropriate. No child will be discriminated against because of issues such as ability, disability, gender, religion or ethnicity.

5 Early years Foundation Stage

5.1 The emphasis for children in Early Years will be on the enjoyment of exploring and working with everyday materials and construction materials. They will have opportunities for

learning simple cutting and joining techniques. The curriculum framework and topic planning for Nursery and Reception classes is based on the Early Learning Goals as set out in the Foundation Curriculum.

6 Use of Materials

6.1 There is a need to experiment with a wide range of materials and tools, appropriately supervised where necessary. The majority of these resources are stored in the DT cupboard. The co-ordinator should be informed of any shortages.

7 Health and Safety

7.1 A safe working environment and ways of working need to be encouraged from the earliest stage and safe practices should be understood by voluntary helpers. All areas must be in view of the teacher and there should be enough space for each child and group to work comfortably. Teachers should be aware of any physical limitations which a pupil may suffer e.g. height disability, poor eyesight or hearing, and make suitable arrangements to allow the pupil to operate sensibly.

7.2 Tools

Tools which present a safety hazard, such as a glue gun or a craft knife will be stored in the staff only resources cupboard.

8 Parental Involvement

8.1 Parental help is encouraged and welcomed. In many classes, especially at FS, parents play an active role.

9 Monitoring and Evaluation

9.1 The monitoring of the standards of the children's work and of the quality of teaching in DT is the responsibility of the DT team and the headteacher. The DT team is also responsible for supporting colleagues in the teaching of DT, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The planning, teaching and learning in DT is monitored on a regular basis, with classroom observations taking place bi-annually in line with the SIP.

10 Recording and Reporting

10.1 Teachers make ongoing informal assessments in DT. Some of these may be recorded through marking of plans and ideas.

Reporting is done informally in the Autumn Term and Spring Terms via parents' evenings and in the Summer through a written report. Reporting on D.T. will focus on each child's planning and skills acquired when making.

Evidence is recorded in topic books either actual work or photographic evidence.

Policy Review

This policy will be reviewed in

Policy updated and agreed: