



Discovery Primary School

Design and Technology Policy

Purpose:

The purpose of this policy is to describe our practice in Design Technology and the principles upon which this is based.

Aims:

Design Technology equips children with the skills and interest in understanding how inventions, creations and products are created. Through Design Technology, children are able to design, make and evaluate innovative, functional and appealing products. Overtime, this knowledge can be used to create products, which suit specific purposes, people or groups. Children will learn to build a range of structures and once confident they will be able to suggest ways to strengthen and stiffen models.

As knowledge and confidence grows, opportunities to apply this knowledge to developing more complex mechanisms will be plentiful. In addition to this, children will become competent in a range of cooking techniques such as: selecting and preparing ingredients and using utensils and electrical equipment. Design Technology encourages and motivates children in discovering more about the technological advances that have taken place in the past and that may be part of our future.

Principles/Values:

This policy is based on our commitment to:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to ensure children participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to allow children to design and make high-quality prototypes and products for a wide range of users
- Providing opportunities for children to critique, evaluate and test their own ideas and products as well as the work of others
- Ensure children understand and apply the principles of nutrition and learn how to cook

Children are competent in the Design Technology skills needed to:

- Research, analyse and use data, which has been collected in a variety of ways, to deepen their understanding of the purpose of mechanical and electrical systems
- 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 their ideas and products against their own design criteria and consider the views of others to improve their work



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Equal Opportunity:

We are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability. Discovery Primary School actively promotes British Values and supports Prevent duty throughout its teaching and learning inclusive of this policy.

Sources and References:

- National Curriculum statutory guidance
- Non-statutory programmes of study for Design Technology (including Edison schemes of work)
- The Prevent Duty - Department of Education

Planning:

We use the Edison curriculum for our planning. We have adapted this to ensure that each topic allows an opportunity for children to learn through Design Technology.

Our curriculum planning is three phases (long-term, medium-term and short-term). Our long-term plan maps the Design Technology topics studied in Edison curriculum during each key stage. Edison planning is used as a medium term plan that class teachers use as a basis for their weekly plans. We use the Edison curriculum as a basis for the medium term plans. This gives details of each unit of work for each term. The subject leader reviews these plans on a regular basis

Each class teacher creates a plan for each lesson. These plans list specific learning objectives and expected outcomes for each lesson. The class teachers keep these individual plans and discuss them with the Design Technology subject leader on an informal basis. English skills should be incorporated into Design Technology lessons therefore allowing regular writing opportunities. The topics in Design Technology are planned logically so that they build on prior learning. Children of all abilities have the opportunity to develop their skills and knowledge in each unit and, through planned progression built into the scheme of work, we offer them an increasing challenge as they advance through the school.

Teaching:

The principle aim is to develop the pupil's knowledge, skills and understanding; this is achieved through whole class teaching as well as assisting individual pupils whereby children learn through hands-on practical activities and projects. The pupils are encouraged to evaluate both their work and the work of their peers whilst asking and answering questions to deepen their understanding of Design Technology. The pupils are given the opportunity to work as a group, and independently, using a wide range of ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Wherever possible we engage the children in contextualised activities and projects. For example: designing, making and evaluating a healthy snack which could be sold at school during break or using research to identify what type of trainer consumers would be most interested in purchasing.

Design Technology is particularly linked to work in other curriculum areas, which includes English (Instructional writing), Maths (Applying use of measures) and ICT (Developing algorithms).



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The Foundation Stage:

We relate the Design and Technology development of the children to the Expressive arts and design objectives set out in the Early Years Outcomes. We follow the Statutory Early Years framework which underpins the curriculum planning for children from birth to five. The children's learning includes constructing with different materials and equipment, using a range of tools safely. Children also explore and learn to select appropriate resources and tools needed to shape, join and assemble materials they are using. The range of experiences encourages children 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. Children experience a wide range of activities that they respond to, using the various senses. The activities that they take part in are imaginative and enjoyable.

Assessment for learning:

Teachers maintain records of pupil progress using photographs, work in Topic books and questioning to inform assessment. Any homework based topic work done during the holidays can also be used as a method of assessing the children. We have clear expectations of what the pupils will know, understand and be able to do at the end of each Key Stage (as outlined in the aims). A cross-section of work, from throughout the school will be placed in the Design Technology portfolio to highlight progress across all year groups.

Resources:

A central store of Design Technology resources is provided for the teaching of DT and this is maintained by the subject leader.

The main store provides a large collection of materials for textile materials and equipment, as well as construction materials and tools, which are located in the DT room near Blue Class. In addition to this, children also have access to a separate kitchen, where they are able to develop their cookery skills. The resource store and kitchen are periodically refreshed to suit the changing needs of pupils' learning. If anyone has any specific resource needs, please contact the subject leader

Consultation:

This policy was written by the Design Technology Subject Coordinator, in consultation with:

- Teaching staff
- Governors

Date written: October 2016

Review Date: September 2018