



"Opening doors to the future"

CYNGOR BWRDEISTREF SIROL MERTHYR TYDFIL

MERTHYR TYDFIL COUNTY BOROUGH COUNCIL

## GREENFIELD SCHOOL

### DT POLICY

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**' Opening Doors To The Future '**

**' Agor drysau i'r dyfodol '**

**Original Completion Date**

September 2015

**Author**

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## **MONITORING THE POLICY**

This policy will be reviewed bi-annually unless change of circumstances or legislation requires it to be amended earlier.

Signed: ..... Date:  
.....

Headteacher

Signed: ..... Date:  
.....

Chair of Governors

**Review Date**

**Author**

## **Our Vision**

'To open doors to the future'

## **Our Mission Statement**

That children, staff, parents, carers and all stakeholders work actively in partnership to enable all pupils to realise and reach their full potential.

## **Aims**

- For pupils to operate as independent learners and thinkers
- To inspire a love for learning
- To provide a relevant curriculum for all
- For pupils to value themselves
- To foster a sense of belonging to a community

## **Our Values**

- We create
- We respect each other
- We try our best
- We are a team
- We learn from mistakes
- We celebrate each other's success
- We are polite and considerate
- We produce magic moments

We want every child to be safe and happy in our school. We believe that the key to this is for us all to have self-respect, respect for others and respect for property.

### **Everyone has the right to:**

- Feel safe, cared for and respected.
- Be able to learn to the best of his/her ability and to develop whatever skills he/she possesses.
- Be treated equally irrespective of gender, race, physical characteristics or any other factors.
- Learn and play without disruption.

### **Everyone is expected to:**

- Be responsible for their own behaviour
- Respect the rights of others
- Share our values

## **Introduction**

This document is a statement of the philosophy, aims and objectives, teaching and learning strategies of Design Technology in Greenfield School. It has been developed through a process of consultation with teaching staff.

## **Philosophy**

For our pupils, Design Technology is an introduction to practical problem solving and using materials available to them to solve problems in a man-made environment. It is a practical subject which develops the spirit of enquiry by encouraging curiosity and reason.

Today's students are living in a highly developed technological society. Each pupil is constantly using and controlling a wide range of technology whether it is the use of a switch, calculator or computer. This is all part of their experience of life and one which they will use in the classroom. Each pupil needs to enjoy the experiences associated with Design Technology by increasing and developing their knowledge and by starting to realise that in technology there is never just one correct solution. This will include opportunities to experience Design Technology and apply to everyday life. Pupils will therefore be working with others, learning to identify a need, designing a solution, building an artefact, testing and evaluating.

Throughout the Design Technology Curriculum we are incorporating sustainable development and global citizenship where appropriate.

## **Aims of the Design and Technology curriculum.**

Our aims for teaching Design Technology are developed from this philosophy and are listed below.

- To provide interest and enjoyment in a stimulating environment.
- To provide activities which develop confidence and enhance self-esteem.
- To work with basic tools, equipment, materials and components to make simple products in a range of materials, including food and textiles.
- To develop a range of skills including those required for designing products.
- To explore common materials and components and investigate the sensory qualities and properties of those materials and products.
- Investigate familiar products and communicate likes and dislikes.
- To develop an awareness of real life situations and issues and the impact of Design Technology on the past, present and future.
- To ensure that pupils are allowed to become active learners in their own programmes.

## **Teaching and Learning Strategies and Planning.**

It is important that the class teacher identifies the most appropriate teaching strategy to suit the purpose of a particular learning situation.

There are a variety of ways in which the teaching may be effective and teachers are encouraged to use their enthusiasm and professional judgement to identify the most sensible, suitable and appropriate method of the work being conducted.

The scheme of work provides suggestions to help in the selection of suitable activities and the most effective approach. Pupils are encouraged to work as individuals and in groups when appropriate. Pupils are encouraged to use a variety of means of communicating and recording their work.

## **Differentiation**

In order to provide for pupils of different abilities within each class we endeavour to differentiate tasks in suitable ways. Differentiation is catered for in one of two ways:

1. Differentiation by task.
2. Differentiation by outcome.

## **Key Skills**

Teachers should provide opportunities, where appropriate, for pupils to develop and apply the following common requirements through their study/participation in Design Technology.

Pupils will be given the opportunity to develop their skills across the subjects.

### **Skills across the Curriculum:**

Pupils at Greenfield are given opportunities to build on skills they have started to acquire and develop during the Foundation Phase. Pupils continue to acquire, develop, practise, apply and refine these skills through group and individual tasks in a variety of contexts across the curriculum. Progress can be seen in terms of the refinement of these skills and by their application to tasks that move from: concrete to abstract; simple to complex; personal to the 'big picture'; familiar to unfamiliar; and supported to independent and interdependent.

### **Developing Thinking.**

Pupils develop their thinking across the curriculum through the processes of planning, developing and reflecting.

Pupils at Greenfield design and make products through the iterative process of creating and developing ideas, designing products, planning, making and reflecting on their decisions and outcomes in terms of their finished product.

### **Developing Communication.**

Pupils should be given the opportunities, where appropriate in their study of Design

Technology to develop and apply their skills of speaking, listening, reading, writing and expression of ideas e.g. signs used alongside words/labelling/evaluation of designs/1 to 1/group discussion of topic/designing and making.

In design and technology, pupils can ask questions and seek out information to develop and support their design ideas. They communicate and record their ideas and intentions by explaining, writing, sketching, using detailed technical drawings and three-dimensional models. Pupils will be evaluating what that they have made, they will work with a partner to evaluate, pupils will use their own communication aids in order to evaluate their product.

### **Developing Number.**

Pupils should be given the opportunities, where appropriate in their study of Design Technology to develop and apply their knowledge and skills of number, shape, space, measures and handling data e.g. numbers/measuring/sets of objects/comparison of sizes/simple graphs e.g. pupils will use ICT equipment to formulate graphs and charts of a variety of different peoples favourite food products.

### **Developing ICT.**

Pupils should be given opportunities, where appropriate in their study of Design Technology to apply their IT skills to obtain, process and present information and communicate ideas with increasing independence e.g. software to be used for simple diagrams/graphs/storage of data, use a digital camera to record their work in sequence to make flow charts.

### **Learning across the curriculum.**

At Greenfield School, pupils are given opportunities to build on the experiences gained during the Foundation Phase, which in turn promote their knowledge and understanding of Wales, their personal and social development and well-being, and their awareness of the world of work.

### **Curriculum Cymreig.**

Pupils should be given the opportunities, where appropriate in their study of Design Technology to develop and apply knowledge and understanding of the cultural, economic, environmental historical and linguistic characteristics of Wales.

Pupils at Greenfield are given opportunities to use the rich characteristics and resources of Wales as a source of inspiration and a context to design and make products.

### **Personal and Social Education.**

Pupils should be given the opportunities, where appropriate in their study of Design Technology to develop and apply the attitudes, skills, values that underpin society, supporting them in becoming active and informed citizens, knowledge and understanding relating to personal and Social Education e.g. environmental concerns; recycling/conservation/litter/sustainable development/care of plants and animals.

Pupils are made aware of human achievements and the big ideas that have shaped the world. They are encouraged to be enterprising and innovative in their designing and making, while having regard for sustainability and environmental issues in the twenty-first century.

These are highlighted by the class teacher and monitored through the topics by the co-ordinator.

### **Careers and the world of work.**

Design and technology contributes to the pupils' awareness of careers and the world of work by providing opportunities for them to understand how consumer products and services are developed and brought to the marketplace. This raises their awareness of the range and diversity of careers associated with manufacturing in the wider world. Design and technology also allows learners to engage with the design and manufacturing technologies that are increasingly used in the workplace.

## **Progression in design and technology.**

### **Design and technology in the Foundation Phase.**

In the Foundation Phase, pupils designing and making skills are developed through using information that generate ideas; this in turn leads to a stimulating and creative making opportunities across all Areas of Learning.

Pupil's progresses in design and technology capabilities are observed with an understanding of child development and the stages children move through.

KS4/5 where appropriate are able to access Merthyr College where they are given the opportunity to access the college curriculum for taster sessions such as brickwork, catering/food tech skills to participate with positive results with learner participation and interaction.

Students continue to work towards Edexcel, OCN and OCR levels of accreditations which build up to Awards.

### **Design Technology in the National Curriculum.**

Design Technology will be delivered through topic work and the revised Greenfield Design and technology at Key Stage 2.

At Key Stage 2, learners are given opportunities to build on their experiences during the Foundation Phase. They are taught to design and make simple products by combining their designing and making skills with knowledge and understanding in contexts that support their work in other subjects and helps develop their understanding of the made world.

Pupils are made aware of human achievements and the big ideas that have shaped the world. They are encouraged to be creative and innovative in their designing and making while being made aware of issues relating to sustainability and environmental issues in the twenty-first century.

### **Design and technology at Key Stage 3.**

At Key Stage 3, pupils are given opportunities to build on the skills, knowledge and understanding acquired at Key Stage 2. They are taught to design and make products by combining their designing and making skills with knowledge and understanding in contexts that allow them to make decisions based on the values that underpin society, helping them become active and informed citizens. They are made aware of human achievements and the big ideas that have shaped the world. Pupils are encouraged to be enterprising and innovative in their designing and making, while having regard for sustainability and environmental issues in the twenty-first century.

### **Design and technology at Key Stage 4/5.**

At KS4/5 students are given opportunities to build on previous skills to design and make products by immersing past knowledge and understanding into the planning, creating and evaluating aspects. Student Thinking Skills are continually being developed due to some quite challenging constructions allowing for a high degree of accuracy and achievement.

During 14-19 pathway tasters, students are offered a variety of activities that have a definitive link to areas of Design and Technology. These include construction and food technology which are all differentiated to meet the needs of the individual students as well as promoting life skills and independent skills.

School Equals schemes of work as well as linking the LNF strands elements and aspects in a cross circular manner.

Design Technology will be studied as a foundation curriculum subject in the national curriculum. However it is important that we explore cross-curricular links in order that the curriculum may be delivered to pupils as a coherent whole.

## **Health and Safety**

Good Design Technology is all about being safe.

Risk assessments should be carried out before undertaking any making/activity. This ensures that members of staff are fully aware of any risk, however small. The key elements of such assessments are to assess the risk associated with the activity as well as the materials.

It is possible to assess...

1. The likelihood of an accident occurring.
2. The possible effects of an accident.

By combining these two factors it is possible to assess the realistic degree of risk. The assessment should then include details of the procedures to be followed in performing the activity, how these details will be communicated to the children and how it will be monitored. It should also recognise the procedures to be followed in case of an accident.

## **Literacy Framework (LNF)**

There are three strands Oracy, Reading, Writing. Pupils should be given opportunities, where appropriate, in their study of Design & Technology to develop and apply the three strands.

## **Numeracy Framework (LNF)**

There are four strands of numeracy – developing numerical reasoning, using number skills, using measuring skills and using data skills. Pupils should be given opportunities, where appropriate, in their study of Design & Technology to develop and apply skills in the four strands.

## **Staffing**

Design Technology is taught by the class teacher with small group/individual guidance provided by the support staff.

The Design Technology Co-ordinator is available to provide support and advice through a timetabled programme.

## **Resources**

See Appendix 1

The role of Design Technology co-ordinator

- To discuss with the head teacher the development of Design Technology throughout the school.
- To assist the head teacher in developing and implementing a school policy of schemes of work, taking into account guidelines laid down by the National Curriculum document and Equals schemes of work.
- To assist with the selection of Design Technology resources.
- To liaise with colleagues and advise on Design Technology development within the school.
- To catalogue Design Technology resources and books.
- To monitor and continue to support improvement of pupil progress through a planned cycle of monitoring.

## **Monitoring and Assessment**

We monitor pupil progress on a termly basis using the B squared assessment tool through P-Level assessments and target setting.



## **Parental Involvement**

Parental involvement in this area is important in that children often gain wide experience in this curriculum area in the home. Where parents have a particular ability, they should be encouraged to contribute to curriculum development and delivery.

Parental involvement can be achieved through...

- Assessment and reporting procedures
- Development of IEPs
- Multi-disciplinary input
- Home-school diaries
- Open evenings
- Accompanying pupils on visits

## **Appendix 1**

Cutting mats, Stanley knife, junior hack saws, joiners

Balsa Wood

Knex

Large Duplo Lego

Cookery Equipment

Range of paper for cutting/folding

Tubing

Junk modelling equipment

Kidi Knex

Knex K8 Construction

Knex – Building Set – Models

Knex – Knex – Levers & Pulleys

Knex – Wheels, Axels & Planes

Mask Making Kit / Puppets

Wooden Construction Set

Mobiles – Vehicles

Duplo