

# Manor Hall Academy



## DESIGN & TECHNOLOGY POLICY

## CICELY HAUGHTON SCHOOL

*Building Relationships*

*Celebrating Success*

*Promoting Change*

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# DESIGN AND TECHNOLOGY POLICY

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### Introduction

- THIS DOCUMENT IS a statement of the aims, principles and strategies for teaching and learning of Design and Technology at Cicely Haughton School.

A. What is Design and Technology (D&T)?

#### D&T National Curriculum requirements, obligations and entitlements:

**National Curriculum requirements:** D&T is a compulsory foundation subject to be provided for KS 1&2. Whereas Academies do not have to follow the NC they have to teach a broad and balanced curriculum. Here at Manor Hall Academy Trust we are committed to providing Design & Technology.

### Purpose of study

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.

### Aims

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.

At Cicely Haughton we strive to provide a program of learning opportunities for all pupils to gain the basic knowledge and understanding, which underpin design and technology. In addition, we endeavour to provide continuity and progression for all pupils throughout the curriculum as they move through the school. We aim to ensure health and safety of all pupils during design and technology activities.

### Key Stage 1

When designing and making, pupils should be taught to:

- 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
- 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
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria
- Build structures, exploring how they can be made stronger, stiffer and more stable
- Explore and use mechanisms [for example, levers, sliders, wheels and axels], in their products

## Key stage 2

When designing and making, pupils should be taught to:

- 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
- 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
- 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
- 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

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.

Pupils should be taught to:

### Key stage 1

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

### Key stage 2

- 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.

### **Strategies for the teaching of Design and Technology**

- THE Design and Technology CURRICULUM IS ORGANISED following the Twinkl scheme of work.
- A variety of teaching strategies is used to ensure a flexibility of approach can be maintained.
- The delivery of schemes relies primarily upon thinking skills, speaking and listening skills and fact acquisition.
- Discussion is encouraged as is the acquisition of appropriate Design and Technology vocabulary.
- All teaching is done by the Design and Technology teacher and class Teaching Assistant/s.
- Pupils with learning difficulties receive extra support in the classroom from Teaching Assistant when appropriate:

In the preparation of Design and Technology lessons attention is given to differentiation and the matching of teaching and learning strategies to enable all pupils to participate fully and achieve success

- EXCELLENCE IN DESIGN AND TECHNOLOGY IS CELEBRATED in display and performance, including:
  - Praise and commendation from individual staff and peers
  - Work is displayed in class and throughout the school

### **Strategies for ensuring Progress and Continuity**

- PLANNING IN Design and technology is from [www.planbee.com](http://www.planbee.com) adapted to high quality resources and meets the needs of National Curriculum.
- THE ROLE OF THE Design and Technology CO-ORDINATOR is to:
  - Direct policy development and produce schemes of work designed to ensure breadth of study in line with requirements of National Curriculum.
  - Monitor progress in Design and Technology and advise teachers on action needed.
  - Take responsibility for the purchase and organisation of central resources for Design and Technology.
  - Keep up-to-date with developments in Design and Technology education and disseminate information to colleagues, as appropriate.
- FEEDBACK TO PUPILS about their own progress in Design and Technology is achieved through the marking of work.

## **Health & Safety :**

Design and Technology is essentially a practical subject

ALL those involved in Design and Technology MUST be safe (in terms of):

- Safeguarding and protection
- General welfare
- H&S procedures in D&T

Tasks, materials and processes are risk assessed according to school policies and CLEAPPS

## **Equal Opportunities and Special Needs:**

Design and Technology is for ALL children at Cicely Haughton School

Staff will work closely with individual children, encouraging, modelling, assisting their development of skills, achieving the task etc. Whilst staff will not do the work for the children there is always a delicate balance of when to step in and assist those children who are trying but for whatever reason not succeeding in the task.

## **Effective marking**

- Aims to help children learn, not to find fault, and comments aim to be positive and constructive.
- Is often done while a task is being carried out through discussion between child and teacher
- FORMATIVE ASSESSMENT is used to guide the progress of individual pupils in Design and Technology. It involves identifying each child's progress in each aspect of the subject, determining what each child has learned and what therefore should be the next stage in his learning. Formative assessment is mostly carried out informally by teachers in the course of their teaching.

Suitable tasks for assessment and future discussion will include:

- Small group discussions perhaps in the context of a practical task.
- Specific assignments for individual pupils (written/spoken/pictorial).
- Individual discussions in which children are encouraged to appraise their own work and progress; this may be done in groups or pairs when collective tasks have been undertaken.

## **Strategies for Recording and Reporting**

- RECORDS OF PROGRESS IN DESIGN AND TECHNOLOGY kept for each child will contain
- A Design and Technology folder of work, dated and annotated with teacher comments and containing the terms work which shows achievement and progress.
- FORMATIVE ASSESSMENT is ongoing.
- RESOURCES IN Design and Technology are the responsibility of the History Coordinator who controls an allocated budget.

The school has recently developed it's provision for the teaching of Design and Technology in our 'outbuildings' classroom. Please see specific policies relating to Health and Safety and Risk Management Plans.

***The school has achieved dyslexia friendly full status and as such will give due regard to dyslexia friendly strategies and objectives.***