# Over Hall Community School

# DT Policy

*Last review date: May 2024*

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**Intent for Design and Technology**

Here at Over Hall, we encourage our pupils to use their creativity and imagination. Our pupils are encouraged to consider real-life problems: designing, making and evaluating products considering the product, purpose and user.

Subject knowledge in DT is wide by incoporating mathematics, science, engineering, computing and art. As children design and make products they learn how to take risks and become skilled, logical and imaginative designers. Children consider not just their own needs, but others' needs, want and values when applied to various contexts.

By covering technical knowledge and skills in various areas such as food, textiles and mechanisms, we aim to build an awareness of the impact of design and technology on our lives and encourage our children to become resourceful, enterprising citizens who will have skills to contribute to future design advancements. The scheme of work ensures pupils build and apply a repertoire of knowledge, understanding and skills in order to design and make high quality protoypes.

Our Design and Technology lessons give children opportunities to investigate exsisting products, create designs, practice new skills, make a product and evaluate what they have made. Pupils learn to select from and use a range of materials, components, including construction materials, textiles and ingrediants.

During their time at Over Hall, we aim for pupils to become **Competent, Cultured and Creative** within the Design and Technology curriculum.

**-Cabable -**Children are able to identify that DT is a skills-based subject, and explain how it could help to equip them with knowledge and skills for their future. They are determined to improve their skills throughout their time at school.

**-Cultured -** Through regular teaching, pupils will have a deeper level of understanding of culture, through DT. They respect how designers create products.

**-Creative -** Children will have developed a stronger sense of creativity. They will become more inquisitive, adventurous, take risks and understand that the outcome is only a part of the process.

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| --- |
| Signed by: |
|  | Headteacher | Date: |  |
|  | Chair of governors | Date: |  |

# Legal framework

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to, the following:

* **[Updated]** DfE (2018) ‘Keeping children safe in education’
* DfE (2013) ‘Design and technology programmes of study: key stages 1 and 2’
* The School Admissions (Infant Class Sizes) Regulations 2012

# Roles and responsibilities

Overall responsibility for monitoring the teaching of D&T throughout the school lies with the headteacher.

**The lead teacher will:**

* Be responsible for the Design Technology Curriculum of the school by preparing and keeping under review a written Policy
* Organise, maintain and update resources
* Advise colleagues and develop confidence on the selection and use of materials, media and stimuli as required
* Be familiar with current thinking about the subjects and be able to communicate this to colleagues
* Lead staff training in the development of Design Technology
* Monitor the learning and teaching of Design Technology
* Encourage the use of stimulating and informative displays to enhance the learning environment

**All teachers are expected to:**

* Follow the agreed school policy for Design Technology
* Follow the agreed curriculum planning for their particular year group
* Request relevant resources when needed
* Display pupil’s work - in class and in corridors
* Provide planning samples termly – when requested

**All pupils are expected to develop their:**

* Competence - apply skills learnt and present their work to a high standard
* Confidence – evaluate and assess their work regularly to understand their strengths and areas of development
* Creativity - express themselves creatively and become actively involved in their own learning

# National curriculum

The school aims to assist pupils in achieving attainment targets set out in the national curriculum. By the end of each key stage, pupils are expected to know, apply and understand the matters, skills, and processes specified in the national curriculum. Pupils will learn a broad range of subject knowledge and draw on disciplines such as maths, science, engineering, computing and art.

In accordance with the national curriculum, the school 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 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.

# KS1

By the end of KS1, pupils will be able 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 and mock-ups and, where appropriate, ICT.

**Make**

* Select from and use a range of tools and equipment to perform practical tasks, e.g. 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, e.g. levers, sliders, wheels and axles, in their products.

Through a variety of creative and practical activities, pupils will be taught the knowledge, understanding and skills needed through a variety of creative and practical activities. They should work in a range of relevant contexts, e.g. the home, school, leisure, enterprise, industry and the wider environment.

# KS2

By the end of KS2, pupils will be able 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 accurately, e.g. cutting, shaping, joining and finishing.
* 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 D&T 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, e.g. gears, pulleys, cams, levers, and linkages.
* Understand and use electrical systems in their products, e.g. 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 will be taught how to cook and apply the principles of nutrition and healthy eating. 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.

By the end of KS1, pupils will be able to:

* Use the basic principles of a healthy and varied diet to prepare dishes.
* Understand where food comes from.

By the end of KS2, pupils will be able to:

* Understand and apply the principles of a healthy and varied diet.
* Prepare and cook 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.

# Equal opportunities

We believe that a greater level of success from pupils and staff can be achieved by realising the uniqueness of individuals. Creating a prejudice-free environment where individuals feel confident and at ease is a commitment of the school. This environment will be achieved by:

* Being respectful.
* Always treating all members of the school community fairly.
* Developing an understanding of diversity and the benefits it can have.
* Adopting an inclusive attitude.
* Adopting an inclusive curriculum that is accessible to all.
* Encouraging compassion and open-mindedness.

# Links to other parts of the curriculum

D&T contributes to the teaching of a number of other subjects in school.

**English**

* D&T offers the opportunity to reinforce what pupils have been learning during English lessons. Discussion, drama and role-play are important methods that the school employs to help pupils develop an understanding of people’s different views and opinions of D&T and society.
* Evaluating products requires pupils to articulate and formulate their ideas to compare their views with other pupils’; through discussion, pupils will learn to justify their own views and clarify their design ideas.

**Maths**

* D&T will assist pupils in learning about shape and size and will make use of what they have already learned in maths lessons. Pupils will carry out investigations – by doing this, they will learn to read and interpret scales, collect and present data, as well as draw their own conclusions.

**PSHE**

* D&T lessons will be used to teach pupils how to discuss their own work and the work of others; in addition, pupils will be taught about health and hygiene, including diets, and how to prevent disease from spreading when working with food.

**Spiritual, moral, social and cultural (SMSC) development**

* Teaching D&T offers opportunities to support the social development of pupils through the way they are expected to work with each other in lessons. D&T helps pupils to develop a respect for other pupils’ abilities. Working in groups encourages collaboration and gives pupils the opportunity to learn from each other and share ideas and feelings.

**ICT**

* ICT enhances the teaching of D&T and provides pupils with additional equipment, extending the possibilities for developing, sharing and recording their work.
* Utilising ICT also benefits pupils by helping them collect information and present their designs and ideas through a range of design and presentation software.

# Health, safety and hygiene

In order to maximise their learning experience, pupils are allowed full access to a wide range of materials in D&T lessons; however, health and safety concerns are inherent with D&T, including storing materials and tools, and the use of equipment.

The risks of each task will be assessed by the classroom teacher and D&T subject leader before lessons and relevant PPE will be compulsory based on their decisions.

Equipment will be tested before the start of every lesson by the classroom teacher.

Pupils will be supervised at all times during D&T lessons.

All pupils will be taught how to use all equipment properly by the classroom teacher before doing so; similarly, pupils will also be fully briefed on the importance of how to correctly use equipment and tools.

Perishable food will be stored sensibly and refrigerated if necessary. Care must be taken by teachers and teaching assistants to ensure food is not used after the given sell by date

A fire safety blanket will be kept next to the cooker at all times.

If any cooking or food preparation is taking place in the classroom, all surfaces will be cleaned before and after use.

Teachers and TAs will oversee that all cupboards, table tops and cookers are clean and in working order.

# Teaching

At Over Hall, we believe that DT is made more meaningful when it is linked to other elements of the curriculum. This is something that we endeavour to do, in order for each project to be exciting and extremely educational. The long-term plan is for children to develop a broad and deep understanding of DT. Children will be capable of producing a working product, that has carefully considered the user and it’s purpose. Across projects, each year group will cover past and present famous figures within the design and technology industry.

Children will be encouraged to:

* Understand the contexts, users and purposes behind products.
* Generate, develop, model and communicate about their own ideas and designs.
* Plan by selecting a range of tools, materials and equipment.
* Develop their practical skills and techniques.
* Evaluate their own ideas, existing products, key events and individuals.
* Display technical knowledge by making products work.

At Over Hall, we have created our own DT scheme of work. We have sequenced our units of work in order to build on prior learning and prepare for future learning. Projects are taught in a sequential manner to allow technical knowledge and skills to progress.

Within**Reception, Year One and Two,** children will be working on the following projects:

* Mechanisms – Wheels and axles.
* Textiles – Templates and joining techniques.
* Structures – Freestanding structures.
* Food – Preparing fruit and vegetables.
* Mechanisms – Sliders and levers.

Within **Year Three and Four**, children will be working on the following projects:

* Structures – Shell structures.
* Food – Healthy and varied diet.
* Textiles – 2-D shape to 3-D product.
* Mechanical systems – Levers and linkages.
* Electrical systems – Simple circuits and switches.

Within **Year Five and Six,** children will be working on the following projects:

* Structures – Frame structures.
* Food – Celebrating culture and seasonality.
* Electrical systems – More complex switches.
* Textiles – Combining different fabric shapes.
* Mechanical systems – Pulleys or gears.

Each key project follows the design process (design, make and evaluate) and has particular theme and focus for technical knowledge or cooking and nutrition. This learning journey is recorded in individual booklets. Lessons incorporate independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks.

# Assessment

Pupils’ D&T work may be assessed throughout the design process and by teachers judging recorded work. Teachers will also assess pupils’:

Knowledge of tools, materials and equipment.

Ability to record and communicate their design ideas in a clear manner.

Personal qualities and attitudes towards their work.

Ability to explain what they have created and how.

Ability to use tools and materials safely and effectively.

Ability to evaluate their work and the work of others.

The majority of assessments will be conducted through observations and discussion.

Assessments will be recorded in the end of year reports to parents.

# Resources and equipment

Pupils may occasionally be asked to bring materials from home if they can; however, to allow all pupils the same opportunities, pupils that are unable to do this will be provided for.

Food technology resources will be kept in the school kitchen.

Additional learning resources, such as books, will be kept in the library.

At the start of every school year, the D&T subject leader and headteacher will assess the school’s D&T tools and materials to ensure there is sufficient equipment for pupils, allowing funds to be allocated where necessary.

# Monitoring and review

This policy will be reviewed every two years by the D&T subject leader and the headteacher.

Any changes made to this policy will be communicated to all members of staff.

All members of staff directly involved with the teaching of D&T are required to familiarise themselves with this policy.

The scheduled review date for this policy is May 2026.