

Kelvedon Hatch Community Primary School

Design Technology Policy



***SCHOOL STAFF WERE CONSULTED ON THIS DOCUMENT AND IT WAS
ACCEPTED BY GOVERNORS SEPTEMBER 2018:***

POLICY TO BE REVIEWED SEPTEMBER 2022

Design Technology Policy for Kelvedon Hatch Community Primary School

At KHCPS learning in every subject will be based on the key elements contained within our Learning and Teaching Pedagogy Policy:

Show Me Boards

- Use of Show Me boards ensure all children are actively engaged and that prior learning (memories) become stronger, thus creating stronger pathways in the brain, enabling learners to build on prior knowledge.
- Show Me boards also play a crucial part in using assessment for learning to identify misconceptions immediately, allowing adults to address these at whole class or individual level immediately.
- Use of Show Me boards generates pace.
- Show Me boards should be used at the start of the lesson to revise previously taught knowledge, processes or skills in order to strengthen memory pathways in the brain.
- Show Me boards can also be used during lessons in order to enable instant whole class assessment, particularly when an 'next step' concept has been taught midway through a lesson.

Additional themes that underpin our pedagogy:

- Lessons implicitly or explicitly reflect on our support of the UN Convention on the Rights of the Child (UNCRC).
- Our strong sense of social responsibility is explicitly discussed within the context of lessons whenever possible.
- Our concrete, pictorial, abstract approach enables all children to access learning.
- Lessons actively encourage children to undertake research based on self-interest (where possible, children have access to research materials, including iPads).
- Where possible, lessons are topic-based and have links with other areas of the curriculum. For example, English skills would be explicitly referred to when writing a method in science.
- Use of I.C.T. equipment supports research and enables enhanced access to the curriculum where appropriate and possible.
- There is a culture of celebrating children's work through referring to very specific elements of the child's work or learning behaviour.
- Adults model (explicitly) how children can meet the given success criteria.
- Adults model the desired learning behaviour through modelling enthusiasm, collaborative learning, use of resources, self-interest research, referring to steps of challenge and success criteria to know if answers are correct / objectives have been achieved.
- Parents are informed of the curriculum at meetings and access to the curriculum overview is on the school website.
- Whenever possible, exciting concrete resources, footage or trips bring topics to life and feed interest and a desire to research.

Inclusion and Equal Opportunity

Kelvedon Hatch Community Primary School, Mission Statement

Joyous, caring, respectful and ambitious

'We are a joyful, creative school that promotes a love of learning within a caring, respectful environment.'

Joyous

We aim to create learning environments that are inspiring, fun and memorable, within a school community that loves learning and celebrates the successes made by all children, at every stage of their learning journey.

Caring

Children, staff and the wider school community care about the wellbeing of others, both within the school community and the wider world community. We nurture and support one another's emotional and social development and respect and celebrate our differences.

Respectful

Our school community holds respect at the core of all we do; we consider carefully the consequence of our actions and words, mindful of the impact these may have on others. We celebrate the progress and effort of those around us.

Ambitious

We strive to be the best we can in all aspects of life: manners, kindness, effort, work, regardless of our starting points, disability, ethnicity, faith or culture. We are all capable.

Care should be taken to give each child the opportunity to learn about the global community, regardless of race, Religion, language, gender or economic status.

Our aim is that no child should be advantaged or disadvantaged due to their race, religion, language, gender or economic status.

Pupils with learning difficulties can be given greater access to the whole curriculum through the use of Computing. They are able to improve the accuracy and presentation of their work and this can improve their motivation and raise self-esteem. A variety of software and tools have been sourced to support this work. Where necessary, pupils are given additional support to provide access to the curriculum. Specialist software and hardware is made available for pupils with specific difficulties, for example, roller ball mice for pupils with co-ordination problems, magnification software for pupils with sight problems and software to support pupils with developing numeracy and literacy skills. Computing is used to provide additional activities to extend and challenge gifted and talented pupils.

Design Technology specific elements of our pedagogy:

Aims

The national curriculum for languages aims to ensure that all pupils:

- Flexible resources to support learning and teaching across the curriculum
- To apply taught skills across the curriculum, where possible.
- To make explicit links to real-life contexts to enable transfer of knowledge and skills.
- To explore the relevance of Design Technology to everyday life.
- To make explicit links to social responsibility.
- To ensure continuity and progression.
- To deliver the National Curriculum requirements.
- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making;
- To enable children to talk about how things work, and to draw and model their ideas;
- To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;
- To foster enjoyment, satisfaction and purpose in designing and making, whilst developing children's creativity and innovation.

National Curriculum subject content

Subject content

Key stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

When designing and making, pupils should be 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.

Key stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be 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.

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.

Opportunities for Personal, Health and Social Responsibility Education

Use opportunities within lessons to promote the UN convention on the Rights of the Child.

Children will be taught to use equipment safely.

Healthy eating and good food hygiene will be promoted.

Planning

Long- term plans are published on the school website.

Medium-term plans include: learning objectives; at least two steps of challenge; use of concrete, pictorial and abstract resources to enable equal access and a mastery approach; and cross-curricular links where possible.

Planning will reflect skills progression and best practice advice produced by Data.org.

Resources

Classes have access to a range of design technology equipment and resources.

Health and safety

Please see Appendix 2 for risk assessment guidance.

Assessment, record-keeping and reporting

Children's work is either kept in school or photographed.

Judgements are made against National Curriculum expectations and the school ROLO.

Teachers use formative assessments to provide immediate feedback to children to ensure good progress.

Teachers use formative assessments to inform planning.

Teachers make summative assessments half-termly using ongoing formative assessment, subject-specific tests, and work scrutiny against the school record of learning observation (ROLO) document. Judgements are recorded on the school Progress Tracker.

Children's progress in Art and Design is reported to parents through the pupil annual report and work is shown to parents at a termly 'book look'.

Developing and Monitoring the Design Technology Curriculum

Roles	Responsibilities
The Role of Senior Management	<p>The overall responsibility for the use of Design Technology subject rests with the senior management of a school: the head teacher, in consultation with governors and staff.</p> <p>Senior Management:</p> <ul style="list-style-type: none">• decide the provision and allocation of resources;• decide ways in which developments can be assessed, and records maintained;• ensure that design technology is used in a way to achieve the aims and objectives of the school;• ensure that learning walks, work scrutiny and record keeping reflect this policy and that the co-ordinator and teachers are held to account for their responsibilities as set out in this policy.
The Role of the Design Technology subject co-ordinator	<ul style="list-style-type: none">• Ensure the development of an effective design technology curriculum.• Promote, support and monitor the use of design technology across the curriculum• Manage the provision and deployment of resources.

- Co-ordinate the evaluation and review of the school's design technology policy.

Learning walks are undertaken at least half-termly to ensure:

- models are of a high quality;
- key school development objectives are evident;
- children identify the challenge star they begin with and the stars they subsequently achieve;
- working walls enable children to self-assess their work and move to the next star of challenge without the need for adult support where possible;
- children use working walls, other resources, adult intervention and peer-to-peer discussion to improve their work using green pens;
- adults mark during lessons but also occasionally mark drafts after school but only when the children will be provided with the opportunity of using this marking to further improve their work;
- adults promote and model correct grammar;
- adults promote and model a broad vocabulary and this is further promoted through vocabulary displays and resources.

Moderation and summative assessments

- Ensure all teachers update half-termly assessments on Progress Tracker.
- Summative assessment grades are moderated through looking at evidence in school Record of Learning Observations (ROLO).
- To update statements on Progress Tracker in response to government guidelines.
- Report termly to governors on pupil progress, learning observations and work scrutiny to governors and the head teacher.

Professional development

- To keep abreast of research relating to the development of writing and to develop staff meetings, resources and policy in response to this.
- To lead staff meetings (teachers and LSAs) to drive the development of Design Technology within the school.
- To actively seek out good practice from other schools through

	<p>visiting and working alongside other professionals.</p> <ul style="list-style-type: none"> • To facilitate the sharing of good practice within school through facilitating team support: identifying areas of good practice, team planning, team teaching then learning observation.
The Role of The Teacher	<ul style="list-style-type: none"> • Plan and assess in accordance with the proforma used in the school and guidance within this document. • To promote enjoyment and enthusiasm of the subject. • To identify children who are not on track to meet age-related objectives / above track to the SEND and design technology subject co-ordinator.