

Halfway Nursery Infant School



Design & Technology Policy

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Signed (Headteacher)	
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HALFWAY NURSERY INFANT SCHOOL

DESIGN AND TECHNOLOGY POLICY

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

We aim to ensure that all pupils:

- develop the creative, technical and practical skills needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- be creative and innovative through designing and making
- build and apply a repertoire of knowledge, understanding and skills in order to design and make 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
- work in co-operation with others, communicating and sharing ideas and tasks
- develop a 'problem solving' approach where several alternatives can be perceived and tried.

ATTAINMENT TARGETS

We teach D&T throughout the Early Years Foundation Stage. In the EYFS we relate the D&T aspects of the children's work to the objectives set out in the Ages & Stages and Early Learning Goals and Early Years Foundation Stage documents, which underpin the curriculum planning for children aged from birth to five.

In Key Stage 1 we use the National Curriculum 2014, alongside our own skills progressions as the basis for implementing the statutory requirements of the programme of study for D&T.

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.

How we plan for Design and Technology

Design and technology is planned through a topic based approach, using agreed topics for each year group. This ensures that Design and Technology contains cross-curricular links. By careful reference to either the Early Years Foundation Stage guidance or National Curriculum Programmes of Study we aim to cover all statutory requirements in our agreed topics. However, where mini topics are seen to be necessary to ensure total coverage, these may be done from time to time any links with other curriculum areas are exploited.

Often our Design and Technology include aspects of Maths, Literacy and Art, especially during design and planning activities

We practise mathematical skills in real contexts; measuring materials, considering pattern and shape.

We think creatively about Design and Technology, using opportunities to extend learning in Information Communications Technology.

Teaching and learning style

Our principal aim is to develop children's knowledge, skills and understanding in Design and Technology through the use of the EDUcate approach (Experience, Develop, Use):

Experience/Engage: Children should be exposed to and engaged in a concept/idea in as many different ways to gain experience of it. This is an essential part of the learning process. If children haven't seen, heard or felt part of a genre or style then they can't possibly claim to have any experience of it. A child

with limited or no experience of something cannot possibly develop learning to enable them to use this concept/idea in real life. It is our role as teachers to provide exposure to and experience of a whole range of notions, ideas and concepts to enable children to understand them and use them appropriately in the real world. Whilst providing experience its essential that teachers assess children as individuals' starting points will be very different. AfL at this stage will provide a valuable insight into what future learning needs to take place for children to gain a true understanding.

Develop: Once children have gained some experience of a concept/idea/genre and teachers have activated prior learning and clearly identified gaps in learning, then together, teaching can be shaped to develop skills and knowledge to fill gaps in understanding and move learning on. It is in this stage where children should make most progress in developing basic skills and teachers should be constantly reflecting on learning and shaping (and re-shaping lessons) teaching to maximise progress for all children.

Use: Once children have developed skills and knowledge and can confidently use them in isolation, it is important we provide children with opportunities to use and apply these newly developed skills and knowledge in real life, purposeful and meaningful situations. It is only in these situations that children will truly show a genuine understanding of a concept/idea, as they should be able to transfer skills/knowledge in the real world, explaining what they have been learning, why they have been learning it and what use it is to them!

Continuity and Progression

Design Technology is a foundation subject in the National Curriculum which is divided into 2 main sections:

- a) Designing and Making, which includes planning and evaluation.
- b) Knowledge and Understanding, which includes health & safety.

We plan our choice of Topics according to the Whole School Topic and Concept Framework. They are half-termly Topics, which offer opportunities for Design and Technology work within the Topic.

Each half-term each year group works on the selected topic which will contribute to the children's understanding of a concept chosen to be developed throughout the whole school. Our plan ensures that the children experience a variety of topics, whilst maintaining a continuity of concepts and developing progression in their learning. We plan to build on children's earlier experiences in their learning of Design and Technology.

Topics are evaluated at the end of each half-term using the planning sheets to show what experiences the children have had. This helps to inform our future planning and demonstrate 'next steps' in learning.

Equal Opportunities and Differentiation

We believe that all children of all abilities can benefit from the study of Design and technology. Both boys and girls are encouraged to take part in Design and Technology activities. We strive to meet the needs of all children and regularly examine our provision to ensure that children with Special Educational Needs of those who are Gifted and Talented are catered for.

Assessment and Record Keeping

It is important that all Design and Technology activities have a clear focus in terms of the skills, knowledge and understanding that are being taught. This clear focus will make it easier to assess whether individual children achieve what is intended.

Children's progress is assessed against the Early Learning Goals at the end of the Foundation Stage. In Key Stage 1 children's progress is measured against the National Curriculum attainment targets for Design and Technology.

Photographs of Design and Technology activities and products are often taken as a record of Design and Technology work within each year group.

Resources

All classrooms are equipped with basic resources for allowing children to do Design and Technology tasks. These include:

- a variety of materials for fastening and joining
- junk materials sorted into curver boxes (children are encouraged to bring a variety of junk materials from home)
- commercially produced materials such as circles for wheels
- a wide variety of materials, paper, pipe cleaners, fabric etc.
- a variety of baking equipment

Staff Development

Staff development in Design and Technology will take account of the needs of individual staff and of the Whole School Development in this curriculum area.

Use will be made of specific courses, projects, curriculum adviser support and the support of the Design and Technology Co-ordinator.

Curriculum days and staff meetings will be used as required to support both individual and Whole School Development

Responsibility for Design and Technology

The overall responsibility for Design and Technology lies with the Headteacher, with the Design and Technology coordinator being responsible for resources, staff support, development and monitoring Design and Technology throughout school. Class teachers are responsible for the planning and implementation of Design and Technology within the classroom.

Safety

All Design and Technology activities will be provided with regard to safety and we will continually encourage the correct use of equipment and materials to ensure safety and the development of good working practice.

Monitoring and Review

The Headteacher, with the support of the Design and Technology Coordinator, will ensure this policy is implemented consistently throughout the school using strategies such as discussion with teachers, pupils and parents/carers, sampling pupils' records and reports and sampling teachers' planning.

Subject coordinators are responsible for the monitoring of assessments for their curriculum area.