

Willerby Carr Lane Primary School



DT POLICY

Introduction

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to learn to produce practical solutions to real problems. Working in a relevant context they should use the home and school, gardens and playgrounds, the local community, industry and the wider environment. As part of the design and making process children should develop technical understanding and making skills and learn about design methods. They should begin to appreciate international design and in particular the impact of British design and its history while also being inspired by the rapidly changing modern age of design and technology.

Through food technology we aim to prepare children with the necessary skills in food preparation, handling and safety in order that in the future they can develop a positive and healthy approach to eating and in general food and lifestyle. The children will learn through our school vegetable garden the importance of sustainability, thriftiness and planning a yearly vegetable garden.

Aims and Objectives

Through the teaching of D&T the children will:

- begin to appreciate the richness that it contributes towards our culture, creativity, wealth and well-being of the nation.
- build and apply their knowledge, understanding and skills in order to design and make high quality prototypes and products for a wide range of users.
- learn to take risks, persevere when things don't go to plan, become resourceful, innovative and enterprising citizens.
- develop the social skills necessary to work as a member of a team, as well as the ability to work independently when the situation demands
- understand and apply the principles of nutrition, learn how to safely prepare food and cook a variety of food dishes.
- learn and experience at first hand the design and manufacturing process through links with local and national industries
- investigate, research and aim to solve design problems through the process of enterprise
- present their finished projects and products to an audience through a variety of different media eg using tablet technology
- be encouraged to be environmentally aware and where possible use sustainable materials
- develop their knowledge and understanding of products, IT programs, structures, mechanisms and control systems, applications, quality and purpose



- be encouraged to select appropriate tools and techniques for making a product, whilst following safe procedures
- be nurtured in order to value the importance of high quality design and how it fits into the increasingly technological, innovative and advancing world
- develop their ability to create high quality products, which combine aesthetics and function
- improve their understanding of technological processes, the manufacture of products and their contribution to our society and their local community
- experience enjoyment, curiosity, imagination and creativity
- be provided with opportunities to develop their design and making capabilities in all areas specified by the National Curriculum and Early Learning Goals.

Content

In design and technology across Key Stage One and Two, children acquire and apply knowledge and understanding of:

- Materials and components
- Mechanisms and control systems
- Structures
- Food and Horticulture
- Existing products
- Quality
- Health and Safety

The Foundation Stage

The different aspects of the arts and design are encompassed within Creative Development in the Foundation Stage Curriculum but also with elements in other areas of learning such as Physical Development, Understanding the World, Literacy and Maths. The Foundation Stage teachers plan Design and Technology as part of an integrated approach to learning with the emphasis on independence and self initiated learning so the children can freely explore a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity and include such activities as construction, play-doh, sand and water play and model building. When required specific focussed learning experiences can also be initiated such as using the woodworking bench or being exposed to 'disassembly' activities.

Programme of Study for Design and Technology

The National Curriculum 2014

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).

At the end of Key Stage 1 most 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, 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 a design criteria

Technical Vocabulary

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 and school, gardens and playgrounds, the local community, industry and the wider environment).

At the end of Key Stage 2 most pupils will be able to:

Design

use research and develop design criteria to inform 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, patterns 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 Vocabulary

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 examples, 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 the National Curriculum food technology plays an important and significant role with the emphasis on teaching important cooking skills and preparing the next generation of adults to lead a healthy life style and make informed choices about their diet. Below are the objectives that pupils should be taught:

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 predominately savoury dishes using a range of cooking techniques
understand seasonality, and know where and how a variety of ingredients are grown, reared and processed.

Organisation

The place of Design and Technology in the curriculum can be seen in the:

1. Long Term Plan
2. Termly outline plans-covering the topic for the term and devised by the year group
3. Short term lesson plans of the year group teachers.

The occurrence of DT in the curriculum

As a major force for topic work eg A topic on bridges linked to The Humber Bridge
As a smaller element within a topic eg science link such as 'Food and Horticulture'
As a stand alone unit of work. This would ensure that DT objectives are being met rather than possibly losing the focus through an art, make the same model making activity.
In discussion / during assembly eg National Science and Engineering Week
In displays both in the classroom and other areas of the school eg models on display in corridors

Opportunities for learning provided by local and national events eg Design a new recipe for a cook book to help raise funds to save a local playground or baking for 'Children in Need'.
School trips eg looking at the design and structure of ships or buildings around Hull

Inclusion

Programmes of work are flexible enough to cater for all children. All children should be helped to achieve their full potential regardless of race, gender or disability. Discussion with Specialist Staff will ensure the needs of any children with any physical needs are met.

All children will be given equal opportunity to participate to the best of their ability in DT and all contributions will be valued and accepted. The practical nature of DT activities enables children to design and make at their own level of ability and for their achievement to be recognised and celebrated.

Resources

The cookery resources are stored either on a mobile trolley in the Resource Room or in cupboards and draws near the sink area. Portable ovens are also stored in this room. After use, cookery equipment and resources should be returned promptly, cleaned and stored neatly.

In the Art Block there is a DT cupboard which contains wood working tools, glue, tape, goggles, sewing and model building materials. There is a woodworking bench with clamps and stored near by in trays and containers are aprons and additional construction materials



eg wood, straws, dowelling rods, pegs, lollipop sticks. The Foundation Stage have a small woodworking bench with a set of miniature sized tools.

The Design and Technology Leader should be informed of all defects and breakages as soon as possible. A resource audit and purchase is carried out annually. Before new stock is ordered, teachers fill out request lists based on specific needs for future lessons.

Assessment and Recording

In the EYFS, assessment will be carried out at the end of the year, against the Early Learning Goals.

In Key Stage One and Two, pupil's DT capability and work are assessed in line with the programmes of study and reported to parents at the end of each academic year. Ongoing teacher assessments are made which highlight the range of abilities within each class. Differentiation is then accommodated through modification of tasks. Children are encouraged to evaluate their own and others projects and key skills of DT. Summative assessments are provided by each class teacher at the end of the school year. These are then made accessible to the future class teacher and DT coordinator via the school internet system.

Health and Safety

Children should be given suitable instruction on the operation of all equipment before being allowed to work with it

Children should be taught to respect the equipment they are using and to keep it stored safely while not in use.

Children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.

Food Hygiene

Pupils and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.

Pupils and staff working with food must wear aprons designed for cooking.

All jewellery should be removed and long hair tied back.

Pupils must not eat while preparing food and wash hands after going to the toilet.

Glue Guns

Low temperature glue guns should only be used by an adult in KS1 unless there is one-to-one supervision for a pupil.

Key Stage two children should use low temperature glue guns under supervision in a designated work area, wearing safety goggles.

Craft Knives

Craft knives, quick cutters and rotary cutters should only be used by an adult/teacher in Key Stage One and the Foundation Stage.

Key Stage Two children may use cutting equipment under supervision, using a cutting mat and wearing safety goggles.

Sawing

Bench hooks, cutting boards and clamps must be used when sawing any material

Safety goggles must be worn and any loose items of clothing/hair must be tucked in.

