

Dothill Primary School

D&T Coverage



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.

Objectives - KS1

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.

COOKING & NUTRITION

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

Year 1 Fruit Kebab

Year 1 Moving Pictures

Year 2 Explorer' s Soup

Year 2 Construct an insect hotel

Year 2 Hand Puppets (textiles)

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Objectives - KS2

	Year 3 Moving Book	Year 3 Photo frame	Year 4 Torches	Year 4 Pasta	Year 5 Cushion (wellbeing)	Year 5 Controllable vehicle	Year 6 Pizza	Year 6 Victorian Fairground Ride
DESIGN								
<ul style="list-style-type: none"> 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 	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 	✓	✓	✓	✓	✓	✓	✓	✓
MAKE								
<ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately 	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> 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								
<ul style="list-style-type: none"> investigate and analyse a range of existing products 	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> evaluate their ideas and products against their own design criteria and consider the views of others to improve their work 	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> understand how key events and individuals in design and technology have helped shape the world 			✓			✓		✓
TECHNICAL KNOWLEDGE								
<ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures 	✓	✓	✓		✓	✓		✓
<ul style="list-style-type: none"> understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] 	✓							✓

<ul style="list-style-type: none"> understand and use <i>electrical systems</i> in their products [for example, <i>series circuits</i> incorporating switches, bulbs, buzzers and motors] 			✓			✓		✓
<ul style="list-style-type: none"> apply their understanding of <i>computing</i> to program, monitor and control their products. 						✓		✓
COOKING & NUTRITION								
<ul style="list-style-type: none"> understand and apply the principles of a healthy and varied diet 				✓			✓	
<ul style="list-style-type: none"> prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques 				✓			✓	
<ul style="list-style-type: none"> understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed 				✓			✓	

Influential Designers

Year 4

Conrad Hubert - invented first battery-powered torch

Year 5

Inventor of first remote-controlled lunar vehicle: Aleksandr Leonovich Kemurdzhian

Year 6

Inventor of Frederick Savage - English engineer / inventor of first steam-powered fairground ride