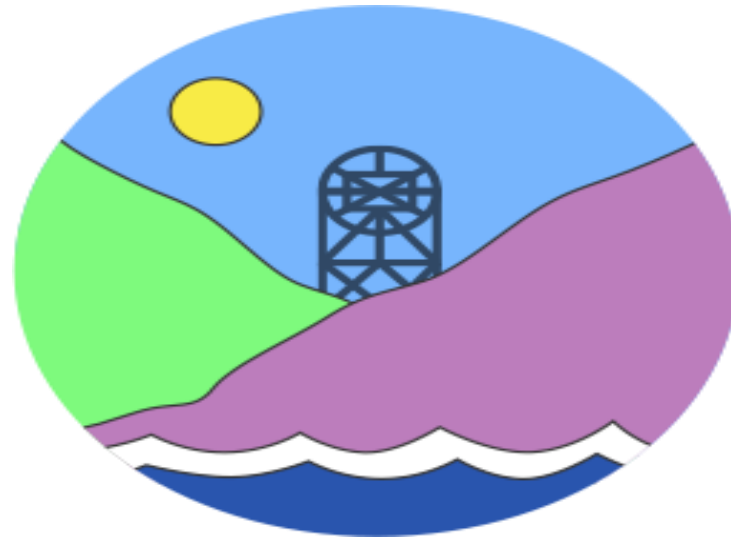


Lingdale Primary School



DT Curriculum

Our Intent:

- Use creativity and innovation to design purposeful and appealing products for themselves and for others that solve real and relevant problems within a variety of contexts.
- Use a range of tools confidently and skilfully, selecting on a fit for purpose basis.
- Articulate their ideas in a variety of formats.
- Evaluate their work against a design criteria, considering their own and others' views in how to modify and improve work whilst demonstrating resilience and respect.
- Develop a critical understanding of the impact of design on our daily lives through a study inventors, designers, engineers and chefs who have developed ground breaking products.
- To have fun, be challenged, work with others and learn in a practical context

Subject Leader: Mrs Robson

Key stage 1

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

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

	Autumn	Spring	Summer
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EYFS

ELGS that feed into Art and Design: Expressive Arts and Design

- Creating with Materials – The children can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- They share their creations, explaining the process/es they have used. The children make use of props and materials when role playing characters in narratives and stories.
- Being Imaginative and Expressive – The children invent, adapt and recount narratives and stories with peers and their teacher. They sing a range of well-known nursery rhymes and songs. The children perform songs, rhymes and stories with others, and, when appropriate, try to move in time with music

**Years 1 & 2
Cycle A**

Food
Preparing Fruit and Vegetables

Textiles
Templates and joining

Mechanisms
Wheels and Axles: Making a vehicle

**Years 1 & 2
Cycle B**

Structures
Freestanding Structures

Food
Preparing Fruit and Vegetables

Mechanisms
Sliders and Levers

**Years 3 & 4
Cycle A**

Textiles
2D shape to a 3D product

Food
Healthy & Varied Diets

Electrical Systems
Simple Circuits and Switches

Years 3 & 4
Cycle B

Mechanical Systems
Levers & Linkages

Mechanical Systems
Pneumatics

Structures
Shell Structures

Years 5 & 6
Cycle A

Structures
Frame structures

Electrical Systems
More complex switches and circuits

Mechanical Systems
Cams

Years 5 & 6
Cycle B

Textiles
Combining different fabric shapes

Food
Celebrating culture and seasonality

Mechanical Systems
Pulleys or gears

