LITTLE BOWDEN
PRIMARY SCHOOL

'Working together to love learning'

THE D and T CURRICULUM: A PROGRESSION

Whole School D and T Progression Map

At Little Bowden, our progression in Design and Technology is ambitious, memorable and diverse, and is developed using Projects on a Page and Focus on Food recipes.

Our Design and Technology curriculum is based on six focused areas of learning: textiles, structures, mechanisms, electronic systems, food and nutrition and key individuals and events. Our long-term plan ensures that we meet the requirements of the National Curriculum and ensures progression in knowledge and skills through the school.

At Little Bowden, each year group will work on a design technology and a food technology project (focusing on healthy eating) each term.
Pupils will research, design, make and evaluate products that solve real and relevant problems. However, some units are purely skill based (sewing, food technology) so the children have those skills embedded, therefore they can apply these skills to D, M and E projects in higher year groups. In D and T, they will develop a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing (IT control strand is taught in our computing lessons) and art.

D and T in the Early Years.

The EYFS framework is structured differently to the national curriculum as it is organised across seven

Areas of Learning rather than subject areas. Technology and design materials are available to EYFS pupils through discover and play during their continuous provision (e.g. creation stations, mud kitchens, tool kits) whilst also in stand alone lessons.

The most relevant statements for DT are taken from the following Areas of Learning:

- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

Reception	Physical Development	• Progress towards a more fluent style of moving, with developing control and grace. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
	Expressive Arts and Design	• Explore, use and refine a variety of artistic effects to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Create collaboratively, sharing ideas, resources and skills.

ELG	Physical Development	Fine Motor Skills	• Use a range of small tools, including scissors, paintbrushes and cutlery.
	Expressive Arts and Design	Creating with Materials	• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.

	Textiles	Structures	Mechanisms	Electronic systems	Food and nutrition	Key individuals
Year 1						
Year 2						
Year 3						
Year 4						
Year 5						
Year 6						

Green boxes represent areas of learning taught in each year group.

Year 1						
National curriculum	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining .and finishing]. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.		Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.		Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.	
Area of learning	**Textiles**	**Structures**	**Mechanisms**	**Electrical systems**	**Food Technology**	**Key individuals**
Learning objectives	To understand how to join different fabrics using different techniques e.g. gluing, stitching To design, make and evaluate a product using fabric joining techniques.		To understand different mechanisms, use different types of movement e.g., simple sliders and levers.		Jumping Bean Couscous Salad. Mini Pitta Pockets Berried Treasure	
Resources	Fabrics, glue, needles, thread.		Card, split pins, scissors			

Year 2						
National curriculum	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining .and finishing]. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. build structures, exploring how they can be made stronger, stiffer and more stable. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.		Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.	
Area of learning	**Textiles**	**Structures**	**Mechanisms**	**Electrical systems**	**Food Technology**	**Key individuals**
Learning objectives	To learn how to use oversew stitch and binka cross stitch.	To know how to make free standing structures stronger, stiffer and more stable.	To design, make and evaluate a product with axles and wheels.		Mini Breakfast Frittatas Pasta Salad with Roasted Vegetables Kachumbari – Kenyan salad	
Resources	Binka, needles, embroidery threads	Card, paper straws, glue, tape.	Wood, dowel, card, wheels			

Year 3

National curriculum	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of materials and components, including construction materials. Evaluate their ideas and products against their own design criteria. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].		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.	
Area of learning	**Textiles**	**Structures**	**Mechanisms**	**Electrical systems**	**Food Technology**	**Key individuals**
Learning objectives	Design, make and evaluate an over the shoulder pouch for a stone age hunter gatherer to collect food.	To design, make and evaluate a 3D shape which will protect a tea cake from being squashed., using their knowledge of how to construct strong, stiff shell structures. (Science- linked to the ribcage)	To design, make and evaluate a pop -up page to illustrate part of the story, 'Cakes in Space' which includes a lever or linkage.		Fruit and Muesli Breakfast Pot Leek and Potato soup Butternut and Thyme Scones	
Resources	Fabric, needle, threads	Masking tape, straws	Split pins, card			

Year 4

National curriculum		Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of materials and components, including construction materials. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Evaluate their ideas and products against their own design criteria. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] .	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.	Understand how key events and individuals in design and technology have helped shape the world.
Area of learning	**Textiles**	**Structures**	**Mechanisms**	**Electrical systems**	**Food Technology**	**Key individuals**
Learning objectives		Design, make and evaluate a bridge.	Design make and evaluate a Jack in a box	Design and make a light up product. (game)	Ratatouille Spicy Chickpea Pot Chocolate and Courgette Muffins	Isambard Kingdom Brunel The invention of the battery
Resources		Card, paper, tape	Boxes, syringes, tubes	Wire, battery, bulbs		

Year 5						
National curriculum	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Evaluate their ideas and products against their own design criteria. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of materials and components, including construction materials. Evaluate their ideas and products against their own design criteria. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].		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.	Understand how key events and individuals in design and technology have helped shape the world.
Area of learning	**Textiles**	**Structures**	**Mechanisms**	**Electrical systems**	**Food Technology**	**Key individuals**
Learning objectives	To learn backstitch technique.	To design, make and evaluate a Viking structure using knowledge of how to strengthen, stiffen and reinforce 3-D frameworks	To design, make and evaluate a cam product which produces movement.		Beetroot, Apple and Onion Chutney Carrot and Coriander Soup Tuna and Broccoli Pasta Bake	Archimedes Invention of the wheel
Resources	Fabric, needle, thread	Card, tape	Cams, dowel			

Year 6

National curriculum	.		Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of materials and components, including construction materials. Evaluate their ideas and products against their own design criteria. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Select from and use a wider range of tools and equipment to perform practical tasks accurately. Evaluate their ideas and products against their own design criteria. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] .	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.	Understand how key events and individuals in design and technology have helped shape the world.
Area of learning	**Textiles**	**Structures**	**Mechanisms**	**Electrical systems**	**Food Technology**	**Key individuals**
Learning objectives			To design, make and evaluate a product which uses their knowledge of how gears and pulleys can be used to speed up, slow down or change the direction of movement.	To design, make and evaluate a product which uses an electrical system which responds to changes in the environment.	Tomato and Basil Bread Berry Breakfast Pancakes Spicy Potato Wedges and Onion Bhajis- **Enterprise project**. Children choose their own focus area (in groups) to reinforce previously learnt knowledge and skills. (Food linked)	Thomas Edison Michael Faraday
Resources			Gears, pulleys	Wires, batteries, bulbs, buzzers.		