

DT Curriculum - 2022/23

EYFS

Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

KS1 -

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage on 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.

Cooking and nutrition

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

KS2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage on an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).

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

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the greatest expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

- 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

Reception	Autumn Term	Spring Term	Summer Term
	<p><u>Construction</u> Design and make a boat for the Gingerbread Man (shaping and joining)</p> <p><u>Food</u> Decorate a Gingerbread biscuit</p>	<p><u>Mechanisms</u> Design and make a London Bus using junk modelling materials (cutting, shaping, joining and finishing)</p> <p>Design and make a London bridge for the naughty Bus to cross the river (shaping and joining)</p> <p><u>Construction</u> Design and make a musical instrument using junk modelling materials (cutting, shaping, joining and finishing)</p>	<p><u>Construction</u> Design and make a trap for the Evil using junk modelling materials (shaping and joining)</p> <p><u>Food-</u> Plan, make and evaluate a fruit super hero (healthy diet & where food comes from)</p>
Year 1	Autumn Term	Spring Term	Summer Term
	<p><u>Food -</u> Plan, make and evaluate a sandwich for a journey to the South Pole (healthy diet & where food comes from)</p> <p><u>Building Structures</u> Design and build a cage for Nibbles (exploring how they can be made stronger, stiffer and more stable)</p>	<p><u>Textiles -</u> Design and make an animal mask (cutting, shaping, joining and finishing)</p>	<p><u>Building Structures</u> Design, make and evaluate a boat that will float (exploring how they can be made stronger, stiffer and more stable) (evaluate against a set criteria)</p>
Year 2	Autumn Term	Spring Term	Summer Term
	<p><u>Construction -</u> Plan, make and evaluate a bird feeder from recycled materials (investigate similar products, use range of materials, how product meets needs of the user)</p>	<p><u>Textiles</u> Designing and sewing a heraldic shield (cutting, shaping, joining and finishing)</p>	<p><u>Mechanisms</u> Making a pulley system for a boat lift (levers and slides)</p>
Year 3	Autumn Term	Spring Term	Summer Term
	<p><u>Construction</u> Design and make a mountain lap-book (cutting, shaping, joining and finishing)</p>	<p><u>Textiles</u> Create a hanging felt design sewing (cutting, shaping, joining and finishing)</p>	<p><u>Building Structures</u> Design, make and evaluate a bridge (exploring how they can be made stronger, stiffer and more stable) (evaluate against a set criteria)</p>
Year 4	Autumn Term	Spring Term	Summer Term
	<p><u>Food</u> Design, make and evaluate a Greek salad (healthy & varied diet)</p>	<p><u>Mechanisms</u> Design, make and evaluate a Roman catapult (levers and slides)</p>	<p><u>Structures</u> Design, make and evaluate a rainforest shelter</p>

	(seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed)	(evaluate ideas and products against own design criteria and consider views of others to improve work)	(explore how to strengthen, stiffen and reinforce more complex structures) (evaluate ideas and products against own design criteria and consider views of others to improve work)
Year 5	Autumn Term	Spring Term	Summer Term
	<p><u>Evaluate</u> Understanding how individuals in design and technology have helped shape the world</p> <p><u>Designing</u> Design and prototype a chair</p>	<p><u>Food</u> Design, make and evaluate superfood for a superhero – flapjack/granola (healthy & varied diet) (seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed)</p>	<p><u>Coding – Technical Knowledge</u> Design and make a moving vehicle using Purple Mash (wheels and axels)</p>
Year 6	Autumn Term	Spring Term	Summer Term
		<p><u>Food</u> Design, make and evaluate the perfect sandwich for a giant (healthy & varied diet) (seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed)</p>	<p><u>Electrical Systems</u> Design and make a lamp for a diver (series circuits incorporating switches, bulbs, buzzers and motors)</p>