

Design and Technology Progression



A Year Autumn Spring Summer

	Reception	Year 1 and 2 (KS1)	Year 3 and 4 (LKS2)	Year 5 and 6 (UKS2)
	Create collaboratively, sharing ideas, resources and skills. Use a range of small tools, including scissors, paintbrushes and cutlery. Make use of props and materials when role playing characters in narratives and stories. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the	<u>Seaside Snacks</u> To design purposeful, functional, appealing products for themselves and other users based on design criteria To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics To evaluate their ideas and products against design criteria To use the basic principles of a healthy and varied diet to prepare dishes	<u>Making Mini Greenhouses</u> To 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 To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately To 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 To investigate and analyse a range of existing products To evaluate their ideas and products against their own design criteria and	<u>American Foods</u> To understand and apply the principles of a healthy and varied diet To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed



process they have used.
Use a range of small tools, including scissors, paintbrushes and cutlery.

consider the views of others to improve their work
To apply their understanding of how to strengthen, stiffen and reinforce more complex structures



		<u>Making a Fire Engine</u> To design purposeful, functional, appealing products for themselves and other users based on design criteria To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics To explore and evaluate a range of existing products To evaluate their ideas and products against design criteria To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products	<u>The Prehistoric World (Art/DT parts)</u> To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately To 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 To understand how key events and individuals in design and technology have helped shape the world	<u>Fairgrounds</u> To 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 To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design To investigate and analyse a range of existing products To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work To apply their understanding of how to strengthen, stiffen and reinforce more complex structures To understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] KS2-understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
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				To apply their understanding of computing to program, monitor and control their products
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Puppets

To design purposeful, functional, appealing products for themselves and other users based on design criteria

To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

To explore and evaluate a range of existing products

To evaluate their ideas and products against design criteria

Sandwich Snacks

To 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

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

To 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

To investigate and analyse a range of existing products

To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

To understand and apply the principles of a healthy and varied diet

To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

Fashion and Textiles

To 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

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

To 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

To investigate and analyse a range of existing products

To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work



Design and Technology Progression Map

B Year Autumn Spring Summer

	Reception	Year 1 and 2 (KS1)	Year 3 and 4 (LKS2)	Year 5 and 6 (UKS2)
<i>Making choices</i>	Create collaboratively, sharing ideas, resources and skills. Use a range of small tools, including scissors, paintbrushes and cutlery. Make use of props and materials when role playing characters in narratives and stories. 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.	<u>Delightful Decorations</u> To design purposeful, functional, appealing products for themselves and other users based on design criteria KS1 - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics To explore and evaluate a range of existing products To evaluate their ideas and products against design criteria	<u>British Inventors</u> To 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 To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design To understand how key events and individuals in design and technology have helped shape the world To apply their understanding of how to strengthen, stiffen and reinforce more complex structures	<u>Ancient Egypt (DT)/ Bread Making</u> To 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 To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately To 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



	Use a range of small tools, including scissors, paintbrushes and cutlery.			To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work To apply their understanding of how to strengthen, stiffen and reinforce more complex structures To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
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Moving Pictures

To design purposeful, functional, appealing products for themselves and other users based on design criteria

To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

To explore and evaluate a range of existing products

To evaluate their ideas and products against design criteria

To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products

Seasonal Foods

To understand and apply the principles of a healthy and varied diet

To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed

Funky Furnishings

To 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

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

To 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

To investigate and analyse a range of existing products

To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work



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Perfect Pizza

To design purposeful, functional, appealing products for themselves and other users based on design criteria

To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing.

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

To explore and evaluate a range of existing products

To evaluate their ideas and products against design criteria

To use the basic principles of a healthy and varied diet to prepare dishes

To understand where food comes from

The Roman Topic (DT)

To 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

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

To 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

To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Building Bridges

To 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

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

To apply their understanding of how to strengthen, stiffen and reinforce more complex structures