

	Aut 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		Free-standing structures:		Mechanisms: Sliders and Levers		Focus Cooking and Nutrition:
		Design, make and evaluate a				Design, Make and Evaluate
		freestanding structure.		Design, Make and Evaluate a		Fruit and Vegetable Kebabs.
		Linked to traditional tales.		story/information book with a moving animal/character.		
		(A house for the Three Little				
		Pigs, Chairs for the Three				
		Bears, A bridge for the 3 Billy Goats Gruff)				
Year 2		Mechanisms: Wheels and	Textiles: Templates			Focus Cooking and
		Axels	and Joining Techniques			Nutrition:
		Make a moving fire engine	Design, Make and			Design, Make and
		– linking to The Great Fire	Evaluate an African			Evaluate a fruit/vegetable
		of London	mask –			product (jelly, salad, smoothie) to a seaside
			Link to Kenya topic			picnic.
Year 3		Textiles: 2D shape to 3D	, ,	Structures: Shell	Food: Healthy and	
		product		Structures	varied diet	
		Design, make and evaluate				
		a textile product to carry		Design, make and evaluate	Design, make and	
		items (Stone Age 'leather'		a chocolate/sweetie box	evaluate	
		pouch, foraging sack,		to hold Easter treats.		
		purse/wallet			(Possible link to	
					foods eaten by	
					members of	
					different classes	
					aboard the Titanic)	
Year 4		Mechanisms: Levers and		Electrical Systems: Simple		Food: Healthy and varied
		Linkages		circuits and switches		diet

Year 5	Design, make and evaluate a moving story/information book or moving poster. Textiles: Combining different fabric shapes	Design, make and evaluate a portable light (nightlight, torch, lantern) Mechanisms: Pulleys/Gears or Cams	Design, make and evaluate a food product (bread rolls, wraps, snack bars). Food: Celebrating Culture and Seasonality
	Design, make and evaluate a hanging textile calendar/pocket organizer that can hold small objects.	Design, make and evaluate a mechanical toy.	Design, make and evaluate a food product.
Year 6	Electrical Systems: More complex circuits and switches Design, make and evaluate an electrical board game.	Food: Celebrating Culture and Seasonality Design, Make and Evaluate a savoury food product (pizza, soup, savoury muffins/scones)	Structures: Frame Structures Design, make and evaluate a model structure that requires a sturdy frame (playground equipment, gazebo, outdoor furniture)
			 – linked with architecture: around the world topic

Key Stage 1 National Curriculum Expectations

Design

Pupils should be taught to:

- 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

Pupils should be taught to:

- 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

Pupils should be taught to:

- explore and evaluate a range of existing products;
- · evaluate their ideas and products against design criteria.

Technical Knowledge

Pupils should be taught to:

- 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.

Key Stage 2 National Curriculum Expectations

Design

Pupils should be taught 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;
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

Pupils should be taught to:

- 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

Pupils should be taught to:

- · 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**

- · 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.

 the home and school, gardens and playgrounds, the local community, industry and the wider environmentl. Children design purposeful, functional, appealing products for themselves and other user based on design criteria. They generate, develop, model and communicate their ideas; through talking, drawing, templates, mock-ups and, where appropriate into model and communicate their ideas; Children can: use their knowledge of existing products and their own experience to help generate their ideas; design products that have a purpose and are aimed at an intended user; explain how their products will look and work through talking and simple annotated drawings; design and test ideas using templates and mock-ups; funderstand and follow simple design criteria; work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. children can: design and test ideas exing the wider environment. children can: identify the design features of their products that have a locar purpose and are aimed at a specific user; design and test ideas using templates and mock-ups; funderstand and follow simple design criteria; work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. g when planning, story based, home, school and the wider environment. g when planning, story based, home, school and the wider environment. g when planning, story based, home, school and the wider environment. g when planning, story based, home, school and the wider environment. g when planning, story based, home, school and the wider environment. g when planning, story based, home particular individuals or groups. h test ideas out through using prototypes; i use computer-aide design to cheir products that will appeal to their indeas; <l< th=""><th>K</th><th>S1</th><th>LKS2</th><th>UK</th><th>S2</th></l<>	K	S1	LKS2	UK	S2
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 j develop and follow simple design criteria; k work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment. 				g	consider the availability and costings of resources when
entertainment, the home, school, leisure, food industry and industry and the wider environment.			j develop and follow simple design criteria;	h	work in a broad range of relevant contexts, for example
			entertainment, the home, school, leisure, food industry and		conservation, the home, school, leisure, culture, enterprise,

KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.
Children select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Children can:	Children select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately. They 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.	Children select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. They 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. Children can:
Planning	Children can:	Planning
a with support, follow a simple plan or recipe;	Plan	5
 begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer; 	a with growing confidence, carefully select from a range of tools and equipment, explaining their choices;	 a independently plan by suggesting what to do next; b with growing confidence, select from a wide range of tools and equipment, explaining their choices;
 select from a range of materials, textiles and components according to their characteristics; 	b select from a range of materials and components according to their functional properties and	 select from a range of materials and components according to their functional properties and
Practical skills and techniques	aesthetic qualities;	aesthetic qualities;
 learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures; 	 place the main stages of making in a systematic order; Practical skills and techniques 	d create step-by-step plans as a guide to making;
e use a range of materials and components, including	d learn to use a range of tools and equipment safely,	Practical skills and techniques
textiles and food ingredients; f with help, measure and mark out;	appropriately and accurately and learn to follow hygiene procedures;	 learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures;
g cut, shape and score materials with some accuracy;	 use a wider range of materials and components, including 	f independently take exact measurements and mark out, to
h assemble, join and combine materials, components or	construction materials and kits, textiles and mechanical	within 1 millimetre;
ingredients;	and electrical components;	g use a full range of materials and components,
i demonstrate how to cut, shape and join fabric to make a simple product;	 f with growing independence, measure and mark out to the nearest cm and millimetre; 	including construction materials and kits, textiles, and mechanical components;
manipulate fabrics in simple ways to create the desired	g cut, shape and score materials with some degree	h cut a range of materials with precision and accuracy;
effect;	of accuracy;	i shape and score materials with precision and accuracy;
k use a basic running stich;	 assemble, join and combine material and components with some degree of accuracy; 	 assemble, join and combine materials and components with accuracy;
 cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups; 	demonstrate how to measure, cut, shape and join fabric	k demonstrate how to measure, make a seam allowance,
m begin to use simple finishing techniques to improve the appearance of their product, such as adding	with some accuracy to make a simple product; join textiles with an appropriate sewing technique;	tape, pin, cut, shape and join fabric with precision to make a more complex product;
simple decorations.	k begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as	join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch;
	hemming, tie-dye, fabric paints and digital graphics.	m refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape.

Make

KS1 Desig	n and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
should be	variety of creative and practical activities, pupils taught the knowledge, understanding and skills engage in an iterative process of designing ng.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.
Children e	xplore and evaluate a range of existing products.	Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own	Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own
They evalu	uate their ideas and products against design criteria.	design criteria and consider the views of others to improve their work.	design criteria and consider the views of others to improve their work.
Children c	an:	They understand how key events and individuals in design and	They understand how key events and individuals in design and
	re and evaluate existing products mainly through issions, comparisons and simple written evaluations;	technology have helped shape the world. Children can:	technology have helped shape the world. Children can:
	in positives and things to improve for ng products;	a explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to	a complete detailed competitor analysis of other products on the market;
	re what materials products are made from;	meet the intended purpose;	b critically evaluate the quality of design, manufacture and
	bout their design ideas and what they are making;	b explore what materials/ingredients products are made	fitness for purpose of products as they design and make;
	ey work, start to identify strengths and possible ges they might make to refine their existing design;	from and suggest reasons for this; c consider their design criteria as they make progress and	 evaluate their ideas and products against the original design criteria, making changes as needed.
	ate their products and ideas against their simple In criteria;	are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product;	
	to understand that the iterative process sometimes	d evaluate their product against their original design criteria;	
involv	ves repeating different stages of the process.	 evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world. 	

KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
Children build structures, exploring how they can be made stronger, stiffer and more stable.	Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
 They explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Children can: a build simple structures, exploring how they can be made stronger, stiffer and more stable; b talk about and start to understand the simple working characteristics of materials and components; c explore and create products using mechanisms, such as levers, sliders and wheels. 	 They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products. Children can: understand that materials have both functional properties and aesthetic qualities; apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products; understand and demonstrate how mechanical and electrical systems have an input and output process; make and represent simple electrical circuits, such as a series and parallel, and components to create functional products; explain how mechanical systems such as levers and linkages create movement; use mechanical systems in their products. 	 They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products. Children can: a apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products; b understand and demonstrate that mechanical and electrical systems have an input, process and output; c explain how mechanical systems, such as cams, create movement and use mechanical systems in their products; d apply their understanding of computing to program, monitor and control a product.

KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
Children use the basic principles of a healthy and varied diet to prepare dishes.	Children understand and apply the principles of a healthy and varied diet.	Children understand and apply the principles of a healthy and varied diet.
		varied diet. They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can:

Key Stage 1 National Curriculum Expectations

Design

Pupils should be taught to:

- 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, mockups and, where appropriate, information and communication technology.

Make

Pupils should be taught to:

- 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

Pupils should be taught to:

- explore and evaluate a range of existing products;
- evaluate their ideas and products against design criteria.

Technical Knowledge

Pupils should be taught to:

- 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.

Key Stage 2 National Curriculum Expectations

Design

Pupils should be taught 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;
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

Pupils should be taught to:

- 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

Pupils should be taught to:

- 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

- 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.

 the home and school, gardens and playgrounds, the local community, industry and the wider environment]. Children design purposeful, functional, appealing products frather ideas through talking, drawing, templates, mock-ups and where appropriate is nork-ups and their ideas. f design products that have a purpose and are aimed at an intended user; g explain how their products will look and work through talking and simple annotated drawings; f design models using simple computing software; e plan and test ideas using templates and not-ups; f understand and follow simple design criteria; g work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. children can: i identify the design features of their products that have a purpose and are aimed at a specific user; g explain how their products work; some and not esting roducts that are fit for purpose, and their ideas; k design in onvative; and appealing products that have a purpose and are aimed at a specific user; i wath in a range of relevant contexts, for example imaging; story-based, home, school and the wider environment. o when planning, start los exploine different initial ideas before coming up with a final design; o when planning, start los exploine different initial ideas before coming up with a final design; i we computer-aided disen; work in a range of clevant contexts, for example imaging; story-based, home, school and the wider environment; i we notated sketches; cross-sectional and computer-aided design; i we notated sketches, cross-sectional and computer-aided dises; i we notated sketches, cross-sectional and	KS1	LKS2	UKS2
 should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing. 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]. Children design purposeful, functional, appealing products for the home, school, leisure, culture, enterprise, industry and the design or riferia. They should work in a range of relevant contexts [for example the home, school, leisure, culture, enterprise, industry and the design or riferia. Use their knowledge index and ther users abased on design or riferia. Use their knowledge of existing products and their owne school, leisure, culture, enterprise, industry and the design or riferia. Use their knowledge of existing products and their owne school, leisure, culture, enterprise, industry and the user escarch and develop design criteria to inform the design of innovative, functional, appealing products that are for purpose, aimed at particular individuals or groups. Children can: design products that have a purpose and are aimed at an intendied user; design models using simple computing software; plan and test ideas using templates and mock-ups; understand and follow simple design criteria; work in a range of relevant contexts, for example imaging, axitory-based, home, school and the wider environment. work in a range of relevant contexts, for example imaging, axitory-based, home, school and the wider environment. work in a range of relevant contexts, for example imaging, axitory-based, home, school and the wider environment. work in a range of relevant contexts, for example imaging, explore different initial ideas using templates and colucits work; work in a range of relevant contexts, for example imaging, explore different initial ideas (sering). work in a range of relevant con	KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
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 experience to help generate their ideas; design products that have a purpose and are aimed at an intended user; gexplain how their products will look and work through talking and simple annotated drawings; h design models using simple computing software; e plan and test ideas using templates and mock-ups; f understand and follow simple design criteria; g work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. c) when designing, explore different initial ideas ind components including function and aestic; p test ideas out through using prototypes; i use computer-aided design to develop and follow simple design; c) work in a broad range of relevant contexts, for example interided (see note on p. 1); ii develop and follow simple design; work in a broad range of relevant contexts, for example interided (see note on p. 1); ii develop and follow simple design or flewant contexts, for example mentertainment, the home, school, leisure, culture, enterp inducts were intervalment, the home, school, leisure, culture, enterp inducts, for example menterialment, the home, school, leisure, culture, enterp inducts, for example menterial in a broader range of relevant contexts, for example menterial interval and construction and as the interval of their products work; m work in a broader range of relevant contexts, for example menterial interval in a broader range of relevant contexts, for example menterial interval of the interval	 the home and school, gardens and playgrounds, the local community, industry and the wider environment]. Children design purposeful, functional, appealing products for themselves and other users based on design criteria. They generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Children can: 	the home, school, leisure, culture, enterprise, industry and the wider environment]. Children 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. They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-	Children 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. They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-
 f design products that have a purpose and are aimed at an intended user; g explain how their products will look and work through talking and simple anotated drawings; h design models using simple computing software; e plan and test ideas using templates and mock-ups; f understand and follow simple design criteria; g work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. i develop and communicate their ideas; n when designing, explore different initial ideas before coming up with a final design; o when planning, start to explain their choice of materials and components including function and aesthetics; p test ideas out through using prototypes; i use computer-aided design to develop and follow simple design of relevant contexts, for example interiation and active ideas (see note on p. 1); d develop and follow simple design of relevant contexts, for example interiation and active ideas (see note on p. 1); d develop and follow simple design of relevant contexts, for example interiation and active ideas (see note on p. 1); d develop and follow simple design of relevant contexts, for example interiationent, the home, school, leisure, food industry and 		Children can:	Children can:
 b) consider the index index	f design products that have a purpose and are aimed at an intended user;	appeal to intended customers;	i use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a
 h design models using simple computing software; e plan and test ideas using templates and mock-ups; f understand and follow simple design criteria; g work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. k design innovative and appealing products that have a clear purpose and are aimed at a specific user; i explain how particular parts of their products work; m use annotated sketches and cross-sectional drawings to develop and communicate their ideas; n when designing, explore different initial ideas before coming up with a final design; o when planning, start to explain their choice of materials and components including function and aesthetics; p test ideas out through using prototypes; i use computer-aided design to develop and communicate their ideas; p test ideas out follow simple design criteria; m work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and 			
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 g work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. m use annotated sketches and cross-sectional drawings to develop and communicate their ideas; n when designing, explore different initial ideas before coming up with a final design; o when planning, start to explain their choice of materials and components including function and aesthetics; p test ideas out through using prototypes; i use computer-aided design to develop and communicate their ideas (see note on p. 1); develop and follow simple design criteria; m work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment. 		explain how particular parts of their products work;	5
 imaginary, story-based, home, school and the wider environment. 			
 coming up with a final design; when planning, start to explain their choice of materials and components including function and aesthetics; test ideas out through using prototypes; use computer-aided design to develop and communicate their ideas (see note on p. 1); develop and follow simple design criteria; work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and 	imaginary, story-based, home, school and the		
 o when planning, start to explain their choice of materials and components including function and aesthetics; p test ideas out through using prototypes; i use computer-aided design to develop and communicate their ideas (see note on p. 1); l develop and follow simple design criteria; m work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and b work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment. 	wider environment.	coming up with a final design;	
 p test ideas out through using prototypes; i use computer-aided design to develop and communicate their ideas (see note on p. 1); l develop and follow simple design criteria; m work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and n generate a range of design ideas and clearly communicate final designs; o consider the availability and costings of resources whe planning out designs; p work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and 			design) to develop and communicate their ideas;
 i use computer-aided design to develop and communicate their ideas (see note on p. 1); i develop and follow simple design criteria; m work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and o consider the availability and costings of resources whe planning out designs; p work in a broad range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment. 			j
 develop and follow simple design criteria; work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment. 			o consider the availability and costings of resources when
entertainment, the home, school, leisure, food industry and industry and the wider environment.			
		entertainment, the home, school, leisure, food industry and	conservation, the home, school, leisure, culture, enterprise,

KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
should be taught the knowledge, understanding and skills	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.
perform practical tasks [for example, cutting, shaping, joining and finishing]. They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Children can:	Children select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately. They 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.	Children select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. They 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. Children can:
	Children can:	Planning
 with support, follow a simple plan or recipe; begin to select from a range of hand tools and equipment, 	Plan	n independently plan by suggesting what to do next;
such as scissors, graters, zesters, safe knives, juicer;	with growing confidence, carefully select from a range of tools and equipment, explaining their choices;	 with growing confidence, select from a wide range of tools and equipment, explaining their choices;
 p select from a range of materials, textiles and components according to their characteristics; Practical skills and techniques 	 select from a range of materials and components according to their functional properties and aesthetic qualities; 	p select from a range of materials and components according to their functional properties and
	n place the main stages of making in a systematic order;	aesthetic qualities;
	Practical skills and techniques	q create step-by-step plans as a guide to making;
r use a range of materials and components, including	 learn to use a range of tools and equipment safely, 	Practical skills and techniques
textiles and food ingredients; s with help, measure and mark out;	appropriately and accurately and learn to follow hygiene procedures;	 learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures;
	p use a wider range of materials and components, including	s independently take exact measurements and mark out, to
u assemble, join and combine materials, components or	construction materials and kits, textiles and mechanical	within 1 millimetre;
ingredients;	and electrical components;	 use a full range of materials and components, including construction materials and kits, textiles, and
 demonstrate how to cut, shape and join fabric to make a simple product; 	 with growing independence, measure and mark out to the nearest cm and millimetre; 	mechanical components;
w manipulate fabrics in simple ways to create the desired	r cut, shape and score materials with some degree	u cut a range of materials with precision and accuracy;
effect;	of accuracy;	v shape and score materials with precision and accuracy;
	 assemble, join and combine material and components with some degree of accuracy; 	 assemble, join and combine materials and components with accuracy;
y cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups;	t demonstrate how to measure, cut, shape and join fabric	demonstrate how to measure, make a seam allowance,
z begin to use simple finishing techniques to improve the	with some accuracy to make a simple product; join textiles with an appropriate sewing technique;	tape, pin, cut, shape and join fabric with precision to make a more complex product;
appearance of their product, such as adding	 begin to select and use different and appropriate finishing 	y join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch;
	techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics.	z refine the finish using techniques to improve the
		appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape.

Make

KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Children explore and evaluate a range of existing products.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views of others to improve	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views of others to improve
 They evaluate their ideas and products against design criteria. Children can: explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations; explain positives and things to improve for existing products; explore what materials products are made from; talk about their design ideas and what they are making; 	 their work. They understand how key events and individuals in design and technology have helped shape the world. Children can: f explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose; g explore what materials/ingredients products are made 	 their work. They understand how key events and individuals in design and technology have helped shape the world. Children can: d complete detailed competitor analysis of other products on the market; e critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make;
 as they work, start to identify strengths and possible changes they might make to refine their existing design; evaluate their products and ideas against their simple design criteria; start to understand that the iterative process sometimes involves repeating different stages of the process. 	 from and suggest reasons for this; consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product; evaluate their product against their original design criteria; evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world. 	f evaluate their ideas and products against the original design criteria, making changes as needed.

KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
Children build structures, exploring how they can be made stronger, stiffer and more stable.	Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
 They explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Children can: d build simple structures, exploring how they can be made stronger, stiffer and more stable; e talk about and start to understand the simple working characteristics of materials and components; f explore and create products using mechanisms, such as levers, sliders and wheels. 	 They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products. Children can: g understand that materials have both functional properties and aesthetic qualities; h apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products; i understand and demonstrate how mechanical and electrical systems have an input and output process; j make and represent simple electrical circuits, such as a series and parallel, and components to create functional products; k explain how mechanical systems such as levers and linkages create movement; use mechanical systems in their products. 	 They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products. Children can: apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products; understand and demonstrate that mechanical and electrical systems have an input, process and output; explain how mechanical systems, such as cams, create movement and use mechanical systems in their products; apply their understanding of computing to program, monitor and control a product.

prepare dishes.varied diet.varied diet.They understand where food comes from.They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.The dishes using a range of cooking techniques.Children can:They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.The variety of ingredients are grown, reared, caught and processed.	Children understand and apply the principles of a healthy and varied diet. They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can: know, explain and give examples of food that is grown
 Children can: g explain where in the world different foods originate from; h understand that all food comes from plants or animals; i understand that food has to be farmed, grown elsewhere (e.g. home) or caught; j name and sort foods into the five groups in the 	dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can:
kunderstand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why; Iipredominantly savoury dishes safely and hygienically; with support, use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven;iluse what they know about the Eatwell Guide to design and prepare dishes.iiluse a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking; m explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes;mnunderstand that to be active and healthy, nutritious food and drink are needed to provide energy for the body; o prepare ingredients using appropriate cooking utensils; bodyopmeasure and weigh ingredients to the nearest gram and millilitre;kkstart to independently follow a recipe; ij	 (such as pears, wheat and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK, Europe and the wider world; understand about seasonality, how this may affect the food availability and plan recipes according to seasonality; understand that food is processed into ingredients that can be eaten or used in cooking; demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source; demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling; explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes; adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma;