



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	<p align="center"><u>Textiles</u></p> <p align="center">Can you design and make a decoration for a Christmas tree?</p> <p>DT.1- 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</p> <p>DT.3- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>DT.7- understand how key events and individuals in design and technology have helped shape the world</p> <p>Designer: Kath Kidston Stitches: Running and cross</p>		<p align="center"><u>Cooking and Nutrition</u></p> <p align="center">Can you design and make a healthy sandwich to take on our school trip?</p> <p>DT.11- understand and apply the principles of a healthy and varied diet</p> <p>DT.13- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p> <p>DT.12- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Designer: Joe Wicks</p>		<p align="center"><u>Mechanisms - Linkages and levers</u></p> <p align="center">Can you design and make an information page about Romans using linkages and levers?</p> <p>DT.3- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>DT.7- understand how key events and individuals in design and technology have helped shape the world</p> <p>DT.9- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p>	
	Skills					
3	<p>Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I can design products for myself and another identified audience • I base my designs on a range of design criteria • I make realistic plans to achieve my aims • I think ahead about my work and plan ahead • I present my ideas using annotated sketches and models <p>Make</p> <ul style="list-style-type: none"> • I select materials according to their functional properties • I work in a safe way • I use my art skills to apply texture or design to my product • I select the most appropriate techniques to make my product • I join and combine materials and components accurately in temporary and permanent ways • I measure, tape or pin, cut and join fabrics with some accuracy • I sew using a range of different stitches • My product has a good finish so that a user will find it both useful and attractive <p>Evaluate</p> <ul style="list-style-type: none"> • I evaluate my work during and at the end of the task • I evaluate my product against my design criteria • I use my improvements to help with future projects 		<p>Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I design products for myself another identified audience • I base my designs on a range of design criteria • I think ahead about my work and plan ahead • I present my work using annotated sketches <p>Make</p> <ul style="list-style-type: none"> • I work in a safe and hygienic way • I demonstrate hygienic food preparation and storage • I select from a range of tools and equipment • I use a range of techniques when working with food <p>Evaluate</p> <ul style="list-style-type: none"> • I evaluate my work during and at the end of the task • I evaluate my product against my design criteria • I use my improvements to help with future projects <p>Cooking</p> <ul style="list-style-type: none"> • I can use a selection of ingredients to meet an identified need 		<p>Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I can design products for myself and another identified audience • I base my designs on a range of design criteria • I make realistic plans to achieve my aims • I think ahead about my work and plan ahead • I present my ideas using annotated sketches and models <p>Make</p> <ul style="list-style-type: none"> • I select from a range of tools and equipment • I select materials according to their functional properties • I apply my knowledge to strengthen and reinforce structures • I work in a safe way • I can measure accurately - cm • I use sharp scissors accurately to score and cut materials • My designs evolve as work proceeds • I use my art skills to apply texture or design to my product • I can make a product that uses mechanisms – sliders and linkages • I select the most appropriate techniques to make my product • My product has a good finish so that a user will find it both useful and attractive <p>Evaluate</p> <ul style="list-style-type: none"> • I evaluate my work during and at the end of the task 	

		<ul style="list-style-type: none"> • I evaluate my product against my design criteria • I use my improvements to help with future projects
Key vocabulary and concepts		
Design, make, material, planning, sketch, sturdy, join, sew, running stitch, cross stitch, pin, finishing, function, prototype	Design, make, ingredients, material, planning, research, healthy, balanced diet, vegetables, bridge grip, grating, arranging, chopping, combining, peeling, spreading, crumbling, hygienic, prototype	Design, make, material, planning, sketch, join, cut, slider, linkage, measure, fixed point, pivot, oscillating, input, output, prototype
Key Knowledge		
<ul style="list-style-type: none"> • Know how to join two pieces of fabric together using a range of techniques • Know the names of at least one designer of fabric products eg Levi Strauss - denim jeans, William Morris – floral patterns, Lucieene Day – WW2 dress making) • Know why designers use patterns • Know how different fabrics are constructed • Know what a prototype is • Know what a design evaluation is 	<ul style="list-style-type: none"> • Know how to plan a design to meet a set of criteria • Know what a balanced, healthy sandwich is • Know how to use equipment safely • Know how to chop using different techniques eg Bridge grip • Know how to use sensory information to evaluate a variety of ingredients • Know about a range of fresh and processed foods for their product • Know whether food is grown, reared or caught 	<ul style="list-style-type: none"> • Know what a design brief is • Know what a prototype is • Know the difference between a fixed and loose pivot • Know how to use lever and linkage mechanisms • Know where levers and linkages are used in commercial products • Know the difference between inputs and outputs • Know how to increase accuracy when measuring, marking out and cutting • Know technical vocabulary relevant to the project
Prior Learning – skills progression		
<p>Design</p> <ul style="list-style-type: none"> • I use my knowledge of materials and components to design products • I can design products for myself • I base my designs on simple design criteria • I present my ideas using words, pictures and models. <p>Make</p> <ul style="list-style-type: none"> • I select the appropriate tools and equipment from a limited range • I combine materials so that the joins are strong • I cut materials with some accuracy • I use my art skills to add detail to my products <p>Evaluate</p> <ul style="list-style-type: none"> • I can evaluate a range of existing products • I can describe what I have done well • I suggest things I could do in the future. 	<p>Make</p> <ul style="list-style-type: none"> • I select the appropriate tools and equipment from a limited range <p>Cooking</p> <ul style="list-style-type: none"> • I prepare food safely and hygienically • I use my knowledge of food to plan a healthy meal • I can describe where different foods come from <p>Evaluate</p> <ul style="list-style-type: none"> • I can evaluate a range of existing products • I can describe what I have done well • I suggest things I could do in the future 	<p>Design</p> <ul style="list-style-type: none"> • I use my knowledge of materials and components to design products • I can design products for myself • I base my designs on simple design criteria • I present my ideas using words, pictures and models. <p>Make</p> <ul style="list-style-type: none"> • I select the appropriate tools and equipment from a limited range • I select from and use a wide range of materials and components in my products • I can make a product which does the job it was made for • I cut materials with some accuracy • I use my art skills to add detail to my products <p>Evaluate</p> <ul style="list-style-type: none"> • I can evaluate a range of existing products • I can describe what I have done well • I suggest things I could do in the future.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
4	<p align="center"><u>Structures</u></p> <p>Can you design and make a 3D shape which can be used as a building block for a Mayan temple?</p> <p>DT.2- 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</p> <p>DT.3- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately]</p> <p>DT.7- understand how key events and individuals in design and technology have helped shape the world</p> <p>Designer: Gustav Eiffel</p>		<p align="center"><u>Cooking and Nutrition</u></p> <p>Can you design and make a healthy pizza for your family picnic?</p> <p>DT.11- understand and apply the principles of a healthy and varied diet</p> <p>DT.13- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p> <p>DT.12- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Designer: Jamie Oliver</p>		<p align="center"><u>Mechanisms - Levers</u></p> <p align="center"><u>Structures - frame</u></p> <p>Can you design and make a shaduf that can hold 50ml of water?</p> <p>DT.5- investigate and analyse a range of existing products</p> <p>DT.3- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately]</p> <p>DT.7- understand how key events and individuals in design and technology have helped shape the world</p> <p>DT.9- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p>	
	Skills					
	<p>Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I base my designs on a range of design criteria • I present my ideas using annotated sketches and models • I can design products for myself and another identified audience • I can make realistic plans on a range of design criteria <p>Make</p> <ul style="list-style-type: none"> • I work in a safe and hygienic way • I select materials according to their functional properties • I use my art skills to apply texture or design to my product • I select the most appropriate techniques to make my product • My designs evolve as work proceeds • I measure, score and cut materials • My product has a good finish so that a user will find it both useful and attractive <p>Evaluate</p> <ul style="list-style-type: none"> • I can investigate and analyse a range of products • I can identify where my evaluations have led to improvements 	<p>Design</p> <ul style="list-style-type: none"> • I can use research to help me design products • I can design products for an identified audience • I can base my design on a range of criteria • I can make realistic plans to achieve my aims • I think ahead about my work and plan ahead • I present my ideas using annotated sketches and models <p>Make</p> <ul style="list-style-type: none"> • I can select from a range of tools and equipment • I can work in a safe and hygienic way • I select the most appropriate techniques to make my product <p>Evaluate</p> <ul style="list-style-type: none"> • I can investigate and analyse a range of products • I can identify where my evaluations have led to improvements <p>Cooking</p> <ul style="list-style-type: none"> • I can use a selection of ingredients to meet an identified need 	<p>Design</p> <ul style="list-style-type: none"> • I can 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 • I can generate, develop, model and communicate their ideas through discussion, annotated sketches <p>Make</p> <ul style="list-style-type: none"> • I can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • I can select from materials according to their functional properties and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities • I measure accurately using a range of equipment – mm, cm • I can make a product that uses mechanisms – levers <p>Evaluate</p> <ul style="list-style-type: none"> • I can investigate and analyse a range of existing products 			

		<ul style="list-style-type: none"> I can evaluate my ideas and products against my own design criteria and consider the views of others to improve my work Technical knowledge <ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, levers]
Key vocabulary and concepts		
Design, make, quality, planning, sketch, assemble, prism, vertex, breadth, capacity, scoring, adhesive, three dimensional, net, structure, marking out, cube, cuboid, joining	Design, make, nutrition, ingredients, material, planning, sketch, product, taste, texture, appearance, preference, prepare, hygiene, safety, control, seasonal, healthy, balanced, nutrition, tinned, frozen, processed	Design, make, quality, planning, sketch structure, function, material, construction, fit for purpose, lever, Shaduf, irrigation, loose pivot, fixed pivot, input, output, rotary, oscillate, reinforce, stable, strength
Key Knowledge		
<ul style="list-style-type: none"> Know what a net is Know the names of more complex 3D shapes Know which tools are appropriate for cutting and scoring materials Know how to test material's strength Know how to use CAD (computer-aided design) to develop a product Know technical vocabulary relevant to the project Know why engineers use certain structures for certain purposes Know how engineers solve design problems eg building Burj Khalifa in Dubai Know simple facts about one structural engineer 	<ul style="list-style-type: none"> Know how to plan a design to meet a set of criteria Know what balanced, healthy food is Know how to chop and prepare a wider range of food using different techniques eg Bridge grip, claw grip, grating, combining Know how to measure ingredients using simple measures eg cup, tblsp Know relevant health and safety procedures when handling and preparing food Know how to use sensory information to evaluate a variety of ingredients Know about a range of fresh and processed foods for their product Know whether food is grown, reared or caught Know about fair trade Know about one key chef and their contribution to healthy eating 	<ul style="list-style-type: none"> Know where loose and fixed pivots are used in products Know how to use lever and linkages mechanisms Know the difference between inputs and outputs Know how to increase accuracy when measuring, marking out and cutting Know technical vocabulary relevant to the project Know a lever and pivot can be positioned to lift a greater weight Know how to meet a design brief Know where levers and linkages are used in commercial products
Prior learning – skills progression		

<p>KS1 Design</p> <ul style="list-style-type: none"> • I use my knowledge of materials and components to design products • I can design products for myself • I base my designs on simple design criteria • I present my ideas using words, pictures and models. <p>Make</p> <ul style="list-style-type: none"> • I select the appropriate tools and equipment from a limited range • I can make a product which does the job it was made for <p>Cooking</p> <ul style="list-style-type: none"> • I prepare food safely and hygienically <p>Year 3 Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I base my designs on a range of design criteria • I present my ideas using annotated sketches and models <p>Make</p> <ul style="list-style-type: none"> • I select materials according to their functional properties I work in a safe and hygienic way 	<p>KS1 Design</p> <ul style="list-style-type: none"> • I can design products for myself • I base my designs on simple design criteria • I present my ideas using words, pictures and models. <p>Evaluate</p> <ul style="list-style-type: none"> • I can evaluate a range of existing products • I can describe what I have done well • I suggest things I could do in the future. <p>Cooking</p> <ul style="list-style-type: none"> • I prepare food safely and hygienically • I can describe where different foods come from • I use my knowledge of food to plan a healthy meal <p>Year 3</p> <ul style="list-style-type: none"> • I can use research to help me design products • I can design products for an identified audience • I can base my design on a range of criteria • I can make realistic plans to achieve my aims • I think ahead about my work and plan ahead • I present my ideas using annotated sketches and models • I can select from a range of tools and equipment • My product has a good finish so that a user will find it both useful and attractive • I can select materials according to their functional properties • I can work in a safe and hygienic way • I select the most appropriate techniques to make my product • I can analyse a range of products • I can use a selection of ingredients to meet an identified need 	<p>KS1 Design</p> <ul style="list-style-type: none"> • I use my knowledge of materials and components to design products • I can design products for myself • I base my designs on simple design criteria <p>Make</p> <ul style="list-style-type: none"> • I select the appropriate tools and equipment from a limited range • I select from and use a wide range of materials and components in my products • I can describe properties of the materials that I use • I combine materials so that the joins are strong • I can make a product that uses movement • I build simple structures, exploring how they can be made stronger <p>Evaluate</p> <ul style="list-style-type: none"> • I can evaluate a range of existing products • I can describe what I have done well • I suggest things I could do in the future. <p>Year 3 Design</p> <ul style="list-style-type: none"> • 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, <p>Make</p> <ul style="list-style-type: none"> • 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, according to their functional properties and aesthetic qualities <p>Evaluate</p> <ul style="list-style-type: none"> • 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 <p>Technical knowledge</p> <ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, levers]
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	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
5	<p align="center"><u>Textiles</u></p> <p>Can you design and make a puppet for a show of The Lion, the Witch and the Wardrobe?</p> <p>DT.1- 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</p> <p>DT.3- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>DT.7- understand how key events and individuals in design and technology have helped shape the world</p> <p>Designer: Jim Henson Stitches: Recap running and introduce back stitch</p>		<p align="center"><u>Mechanisms - Pulleys</u></p> <p>Can you find a way to transport tomatoes to move them to a new location without being squashed?</p> <p>DT.3- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>DT.7- understand how key events and individuals in design and technology have helped shape the world</p> <p>DT.9- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Designer: James Dyson</p>		<p align="center"><u>Cooking and Nutrition</u></p> <p>Can you design and make a healthy dish for your friend's Eid party?</p> <p>DT.11- understand and apply the principles of a healthy and varied diet</p> <p>DT.13- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p> <p>DT.12- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Designer: Nadiya Hussain</p>	
	Skills					
	<p>Design</p> <ul style="list-style-type: none"> I can design products for a wide audience I can take the views of others into account when designing my products I use research to design purposeful, functional and appealing products I will make and design a puppets, using shapes and material to make it look effective I produce clear step-by-step plans I can present my ideas in exploded diagrams <p>Make</p> <ul style="list-style-type: none"> I select materials according to their functional and aesthetic properties I work in a safe way I select the most appropriate techniques to make my product I join and combine materials and components accurately in temporary and permanent ways I cut and join with accuracy to ensure a good quality finish to the product I sew using a range of different stitches My product has a good finish so that a user will find it both useful and attractive <p>Evaluate</p> <ul style="list-style-type: none"> I evaluate my designs based on the original design criteria I suggest improvements to my work and give reasons 		<p>Design</p> <ul style="list-style-type: none"> I take the view of users into account when designing my products I can design products for a wide audience I use research to design purposeful, functional and appealing products apply a high quality finish to my products I can produce step-by-step plans I present my ideas using exploded diagrams <p>Make</p> <ul style="list-style-type: none"> I select materials according to their aesthetic qualities I select from a range of tools and equipment My work incorporates the views of intended users I apply a high quality finish to my products <p>Evaluate</p> <ul style="list-style-type: none"> I evaluate my designs based on the original design criteria I suggest improvements to my work and give reasons 		<p>Design</p> <ul style="list-style-type: none"> I can research to design purposeful, functional and appealing products I can produce step-by-step plans <p>Make</p> <ul style="list-style-type: none"> I select from a wide range of tools and equipment I weigh and measure accurately (dry ingredients, wet ingredients, time) I select foods according to their taste and texture as well as aesthetic qualities My work incorporates the views of intended users I apply a high quality finish to my product <p>Evaluate</p> <ul style="list-style-type: none"> I evaluate my designs based on the original design criteria I can make observations using materials and equipment that are right for the task I can suggest improvements to my work and give reasons I can improve after testing <p>Cooking</p> <ul style="list-style-type: none"> I can use a range of cooking techniques to prepare and cook food I can describe the 'journey' of individual foods My food is well presented 	

Key vocabulary and concepts

Design, make, material, planning, sketch, specification tacking, template, design criteria, reinforce, hem, running stitch, back stitch

Design, make, gear, pulley, driver, follower, rotation, motor, belt, drawings, exploded diagram, functionality

Design, draw, sketch, planning, make, materials, quality finish dates, Iftar, Ramadan, nutrition , fibre, fasting, Eid, moon sighting, crescent, ingredients, seasonal, gluten, allergy, savoury, mix, whisk, blend, grate, combine, fold,

Key Knowledge

- Know what an annotated sketch is
- Know why designers use prototypes
- Know a range of designers who use fabrics in their work
- Know some key dates in the development of fabric eg 1562 first use or purl stitch, 1890 first pair of jeans by Levi Strauss
- Know that a 3D textile product can be made from a combination of accurately made pieces
- Know how to test fabrics in order to select them for use
- Know when to combine different fabrics
- Know when to use particular stitch types (including finishing stitches)
- Know how to follow relevant health and safety protocols
- Know why designers might need to strengthen, stiffen and reinforce existing fabrics
- Know what constitutes renewable/sustainable material/fabric
- Know what accuracy means and how it can be improved
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- Know that mechanical and electrical systems have an input, process and output
- Know what a gear is
- Know what a pulley is
- Know that gears and pulleys can be used to speed up, slow down or change the direction of movement
- Know how to accurately draw an exploded diagram
- Know vocabulary relevant to the project
- Know where pulleys and gears are used in commercial products and industry
- Know that forces are acting on pulleys

- Know the importance of healthy eating after fasting
- Know the importance of fluid intake and food containing natural sugars, the impact of what you eat effects your body after fasting
- Know what a healthy balanced meal is
- Know what a seasonal product is
- Know more advanced methods for preparing food including mixing, combining, cutting – recap bridge and claw knife skills
- Know how to measure ingredients accurately using different units
- Know to follow or adapt a recipe
- Know how to select appropriate utensils for specific jobs
- Be able to prepare a meal in a hygienic, safe way
- Know a range of chefs and their individual style of cooking
- Know about organic foods and the impact of these

Prior learning – skills progression

- KS1**
- I select from and use a wide range of materials and components in my products
- Year 3/4**
- I make realistic plans to achieve my aims
 - I think ahead about my work and plan ahead
 - I present my ideas using annotated sketches and models
 - I select from a range of tools and equipment
 - I select materials according to their functional properties
 - I have made a product that uses electrical components

- KS1**
- Design**
- I can design products for myself
 - I base my designs on simple design criteria
- Make**
- I select the appropriate tools and equipment from a limited range
 - I select from and use a wide range of materials and components in my products
- Evaluate**
- I can describe what I have done well
- Year 3/4**

- KS1**
- I can make a product which does the job it was made for
 - I select the appropriate tools and equipment from a limited range
 - I present my ideas using words, pictures and models.
 - I can describe what I have done well
 - I suggest things I could do in the future.
- Year 3/4**
- I present my ideas using annotated sketches and models
 - I select from a range of tools and equipment
 - I select materials according to their functional properties

	<p>Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I can design products for myself and another identified audience <p>Make</p> <ul style="list-style-type: none"> • My product has a good finish so that a user will find it both useful and attractive <p>Evaluate</p> <ul style="list-style-type: none"> • I can identify where my evaluations have led to improvements 	<ul style="list-style-type: none"> • I can identify where my evaluations have led to improvements
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	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
6	<p align="center"><u>Structure</u></p> <p>Can you design and make a shelter that is waterproof and can support a weight of 100g?</p> <p>DT.1- 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</p> <p>DT.2 -generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>DT.5- investigate and analyse a range of existing products</p> <p>DT.8- apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>		<p align="center"><u>Electrical systems</u></p> <p>DT.1- 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</p> <p>DT.2 -generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>DT.6 - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>DT.7 - understand how key events and individuals in design and technology have helped shape the world</p> <p>DT.10 – understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors)</p>		<p align="center"><u>Cooking and Nutrition</u></p> <p>Can you design and make a mezze platter for a Greek party at school?</p> <p>DT.11- understand and apply the principles of a healthy and varied diet</p> <p>DT.13- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed DT.12- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p>	
	Designer:					
	Skills					
	<p>Design</p> <ul style="list-style-type: none"> • I use research to design purposeful, functional and appealing products • I can design products for a wide audience • I take the views of users into account when designing my products • I produce clear step-by-step plans • I present my ideas using exploded diagrams • I develop a design specification <p>Make</p> <ul style="list-style-type: none"> • I select from a wide range of tools and equipment 	<p>Design</p> <ul style="list-style-type: none"> • I use research to design purposeful, functional and appealing products • I can take the views of users into account when designing my products • I produce clear step-by-step diagrams • I present my ideas in exploded diagrams • I develop a design specification <p>Make</p> <ul style="list-style-type: none"> • I select from a range of tools and equipment • My work incorporates the views of intended users 	<p>Design</p> <ul style="list-style-type: none"> • I can research to design purposeful, functional and appealing products • I can produce step-by-step plans <p>Make</p> <ul style="list-style-type: none"> • I select from a wide range of tools and equipment • I weigh and measure accurately (dry ingredients, wet ingredients, time) • I select foods according to their taste and texture as well as aesthetic qualities • My work incorporates the views of intended users 			

<ul style="list-style-type: none"> • I measure accurately from a range of scales • I select materials according to their aesthetic qualities • My work incorporates the views of intended users • I apply a high quality finish to my product <p>Evaluate</p> <ul style="list-style-type: none"> • I evaluate my designs based on the original design criteria • I can make improvements to my prototype 	<ul style="list-style-type: none"> • I assemble components to make working models • I use tools safely and accurately • I achieve a high quality product <p>Evaluate</p> <ul style="list-style-type: none"> • I evaluate my designs based on the original design criteria • I apply a high quality finish to my product • I can make improvements to my prototype 	<ul style="list-style-type: none"> • I apply a high quality finish to my product <p>Evaluate</p> <ul style="list-style-type: none"> • I evaluate my designs based on the original design criteria • I can make observations using materials and equipment that are right for the task • I can suggest improvements to my work and give reasons • I can improve after testing <p>Cooking</p> <ul style="list-style-type: none"> • I can use a range of cooking techniques to prepare and cook food • I can describe the 'journey' of individual foods <ul style="list-style-type: none"> • My food is well presented
Key vocabulary and concepts		
<p>design, make, material, planning, sketch, sturdy, structure, evaluate, reinforce, triangulation, stability, temporary, permanent, prototype, innovation, functional, criteria brief</p>	<p>Design, make, series circuit, connections, input device, output device, switch, system, light emitting, control</p>	<p>Nutrition, quality, ingredients, healthy options, cholesterol, sustainability, herbs, spices, allergy, gluten, seasonal, mix, cut, grate, combine, sieve, fold, whisk,</p>
Key Knowledge		
<ul style="list-style-type: none"> • Know how to develop a design brief • Know how to plan the order of work, choosing appropriate tools, materials and techniques • Know how to stiffen, strength and reinforce a range of 3D frameworks • Know which materials are best suited to stiffen and reinforce by selecting them due to their properties • Know which shapes are the strongest and will support the most weight in a structure • Know how to use a range of tools eg junior hacksaw, G-clamp, bench hook, hand drill safely • Know technical vocabulary relevant to the project • Know why engineers use certain structures for certain purposes • Know how engineers solve complex design problems • Know facts about more than one structural engineer 	<ul style="list-style-type: none"> • Know how to incorporate simple self-made switches into a circuit • Know how to test components in more complex switches • Know technical vocabulary relevant to the project • Know how simple switches can be made • Know how to assess faults in their own electrical systems • Know how to test components in a simple series circuit • Know why materials make good conductors and insulators • Know how wider electrical systems are controlled 	<ul style="list-style-type: none"> • Know more advanced methods for mixing ingredients eg rubbing in • Know and recap different knife skills eg bridge grip, claw grip • Know how to measure ingredients accurately using different units • Know to follow or adapt a recipe • Know how to select appropriate utensils for specific jobs • Be able to prepare a meal in a hygienic, safe way • Know a range of chefs and their individual style of cooking • Know about organic foods and the impact of these
Prior learning – skills progression		
<p>Year 3/4 Design</p> <ul style="list-style-type: none"> • I use research to help me design products • I can design products for myself and another identified audience • I make realistic plans to achieve my aims • I think ahead about my work and plan ahead • I present my ideas using annotated sketches and models <p>Make</p> <ul style="list-style-type: none"> • I select from a range of tools and equipment 	<p>KS1 Design</p> <ul style="list-style-type: none"> • I base my designs on simple design criteria <p>Make</p> <ul style="list-style-type: none"> • I select the appropriate tools and equipment from a limited range • I can describe properties of the materials that I use • I combine materials so that the joins are strong • I can make a product which does the job it was made for • I build simple structures, exploring how they can be made stronger 	<p>KS1 Cooking</p> <ul style="list-style-type: none"> • I prepare food safely and hygienically • I can describe where different foods come from <p>Year 3/4 Cooking</p> <ul style="list-style-type: none"> • I can use a selection of ingredients to meet an identified need

- I measure accurately using a range of equipment (mm, cm, g, Kg)
- I select materials according to their functional properties

Evaluate

- I can describe what I have done well
- I suggest things I could do in the future.

Year 3/4

Design

- I base my designs on a range of design criteria

Make

- I select from a range of tools and equipment
- I select materials according to their functional properties
- I apply my knowledge to strengthen complex structures
- I can apply my knowledge to strengthen and reinforce complex structures

Evaluate

- I can investigate and analyse a range of products
- I can identify where my evaluations have led to improvements

Year 5

Design

- I use research to design purposeful, functional and appealing products

Make

- I select from a wide range of tools and equipment
- I can improve after testing

Evaluate

- I evaluate my designs based on the original design criteria