| Concepts | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Cooking and Nutrition | Expressive Arts and Design - <br> - Create collaboratively, sharing ideas, resources and skills. <br> ELG - PD - Fine motor skills <br> - Use a range of small tools, including scissors, paintbrushes and cutlery. | 1. I can identify and describe which foods are healthy choices and which foods are, in large quantities unhealthy choices and whether they come from plants or animals <br> (1) I know some foods which are healthy (fruit, vegetables) <br> (1) I know some foods which are unhealthy (in large quantities) (fizzy drinks, chocolate, sweets) (1) I know which foods I'm using come from plants and which foods come from animals <br> 2. With support, I can safely and hygienically cut up soft food and mix foods together <br> (2) I know I must wash and correctly dry my hands before working with food. <br> (2) I know how to hold and use a knife safely to cut something soft <br> (2) I know the tools and actions needed for mixing foods together | 1. I can identify and describe which ingredients make a food a healthy or unhealthy choices and show an understanding of portion size and whether food comes from a plant or animal <br> (1) I know the names and properties of different ingredients and which ingredients make a food a healthy choice (fruit in a smoothie) <br> (1) I know the names and properties of different ingredients and which ingredients make a food an unhealthy choice (sugar in fizzy drinks) (1) I know the importance of eating the right amounts of different types of food <br> (1) I know how to use s simple scale or balance 2. <br> 2. I can safely and hygienically chop food and mix foods together, with increasing independence <br> (2) I know why I must wash and correctly dry my hands before working with food <br> (2) I know how to hold and use a knife safely to chop an increasing variety of foods | 1. I can follow a recipe to produce a meal, choosing the tools I need to do so. (1/2) I know a variety of tools that are used when cooking and how to use these safely. <br> (1/2) I know an increased variety of techniques when cooking. <br> 2. I can safely create a balanced dish, choosing ingredients, using heat and a variety of tools, with increasing independence. <br> (2) I know the steps to take to stay safe around heat when cooking. (2) I know which ingredients to choose for certain dishes <br> (2) I know how to safely store different food groups in the fridge to avoid contamination <br> (2) I know the main food groups and what a balanced meal should contain <br> 3. I can explain my understanding of where and how ingredients are grown, reared, caught and processed. <br> (3) I know some ingredients can be natural or man-made and which ingredients are reared, caught or grown for food | 1. I can design and sequence a menu that is balanced, varied and healthy, safely following the recipe/s, to create a meal and present a dish in an appealing way <br> (1) I know what effective menu design looks like (1) I know what effective menu sequencing consists of (1) I know ingredients that work well together and are commonly used together <br> (1) I know how to present food in an appealing way <br> (1) I know how to weigh in grams <br> (1) I know when to use a different chopping board to prevent crosscontamination <br> (1) I know a wide variety of foods within each food group and what these food groups do for the human body <br> 2. I can describe seasonality in food production. <br> (2) I know the difference between food that is grown and food that is processed. <br> (2) I know why foods are grown at certain times of the year. | 1. I can write a detailed recipe, with seasonal ingredients and a step by step plan, for a specific, identified need (1/2) I know the chronology sequence to take when designing and making a recipe (1/3) I know how to modify recipes to account for specific needs <br> 2. I can create a meal from my detailed recipe, using suitable cooking techniques (chopping, slicing, mixing, blending, etc), safely and hygienically <br> (2) I know a variety of suitable cooking techniques (chopping, slicing, mixing, blending , etc.) and how to implement these safely (2) I know temperature danger zones for food and control measures to avoid these <br> 3. I can modify a recipe, including by using proportions (doubling/halving) and explain why and how $I$ have changed it <br> (3) I know how to modify recipes by doubling and halving proportions | 1. I can create a balanced meal, that takes account of all food groups, and explain why my meal is healthy and balanced <br> (1) I know which nutrients we can get from each food group <br> (1) I know the impact of diet on the human body <br> 2. I can independently and safely use a range of tools and strategies to create a complex meal <br> 2) I know which tools are appropriate to use in a given situation <br> (2) I know ways to keep safe when cooking independently |


|  |  |  | 3. I can observe an adult cooking and describe the steps they take to keep safe around heat <br> (3) I know how to stay safe around heat used for cooking (hob and oven) | and that food can be processed by machinery. |  |  |  |
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| Design | Physical Development <br> - Progress towards a more fluent style of moving, with developing control and grace. <br> - Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. Expressive Arts and Design <br> - Explore, use and refine a variety of artistic effects to express their ideas and feelings. - Return to and build on their previous learning, refining ideas and developing their ability to represent them. - Create collaboratively, sharing ideas, resources and skills. <br> ELG PD Fine motor skills <br> - Use a range of small tools, including scissors, paintbrushes and cutlery. <br> ELG - Expressive Arts and Design - creating with materials <br> - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | 1. I can create a plan, with a labelled picture, and list of materials, that fits the design criteria, and talk through my ideas <br> (1) I know what the words functional and appealing mean <br> (1) I know what a design criteria is <br> (1) I know vocabulary to describe what I want to do <br> (1) I know how to draw simple pictures, with labels, to show what I want to do <br> (1) I know to draw on inspiration and my own ideas to make a design (1) I know to make a list of materials when I plan | 1. I can plan, based on a design criteria, by comparing existing products and combining with my own ideas <br> (1) I know what a design criteria is and why it is important <br> (1) I know to generate ideas through comparing existing products <br> 2. I can create a plan, through a labelled diagram, and explain how my product will work and will be useful and appealing to the user (2) I know what the words purposeful, functional and appealing mean <br> (2) I know how to draw a labelled diagram to show what I plan to do <br> (2) I know vocabulary that describes how a product works <br> (2) I know how a product will be useful to the user | 1. I can create design criteria informed from market research, with a clear, established purpose <br> (1) I know how and why market research informs product design <br> (1) I know how to carry out market research <br> (1) I know the purpose must be established <br> 2. I can create an annotated sketch for my design, showing the purpose of my product, a tools/equipment list, and the order of the main stages of making (2) I know vocabulary to describe the purpose of my product and how design features will work (2) I know how to create an annotated sketch to communicate my design ideas <br> (2) I know to include a tools/equipment list <br> (2) I know to order the main stages of making when designing <br> 3. I can explain how I have planned for the properties of materials and mechanisms in moving parts that l'll be working with | 1. I can independently carry out valid market research that I use to inform my design, understanding the importance of following through <br> (1) I know how to carry out increasingly valid market research <br> 2. I can create and use detailed cross-sectional diagrams, that shows the steps in making and explains how my design meets the needs of the target audience <br> (2) I know how to create a cross-sectional diagram to communicate my design ideas <br> (2) I know what a target audience is <br> (2) I know the needs of my particular target audience | 1. I can use research and carry out valid market research to explore functionality and create achievable but aspirational design criteria for functional products <br> (1) I know what is meant by functionality <br> 2. I can use exploded diagrams and prototypes to communicate my design ideas, adapt to problems, and use them to support the making process <br> (2) I know what an exploded diagram is and how to draw one <br> (2) I know what a prototype is and how to create one <br> (2) I know the importance of adapting my design to address problems (2) I know the importance of using my design to support the making process | 1. I can use research and carry out valid market research to explore innovate ideas and create achievable but aspirational design criteria for innovative products <br> (1) I know what is meant by innovative and aspirational <br> (1) I know to take a user's view into account when designing <br> 2. I can create a step by step, scaled design, using pattern pieces and computer aided design to communicate my design ideas, that takes into account cost constraints (2) I know how to draw scaled diagrams using ratio <br> (2) I know the importance of cost and budget, estimating amounts of materials <br> (2) I know what a pattern piece is and how to create one <br> (2) I know how computeraided design can be used in the design process <br> (2) I know to create a step by step design <br> 3. I can suggest some alternative designs, $\qquad$ |


|  |  |  |  | (3) I know to consider the properties of materials and mechanisms in moving parts when planning my product |  |  | and drawbacks to the design process and outcome <br> (3) I know the importance of considering alternative designs <br> (3) I know vocabulary to justify my design choices (3) I know the use of the product must be considered when selecting materials |
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| Make | Physical Development <br> - Progress towards a more fluent style of moving, with developing control and grace. <br> - Develop their small motor skills so that they can use a range of tools competently, safely and confidently. <br> Expressive Arts and Design <br> - Return to and build on their previous learning, refining ideas and developing their ability to represent them. <br> - Create collaboratively, sharing ideas, resources and skills. <br> - Return to and build on their previous learning, refining ideas and developing their ability to represent them. - Create collaboratively, sharing ideas, resources and skills. <br> ELG PD Fine motor skills | 1. I can select from and use a range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) <br> (1) I know how to cut materials using scissors <br> (1) I know how to join two materials together with glue <br> (1) I know which tools I am using and why <br> (1) I know how to use tools safely <br> 2. I can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics, to make a construction <br> (2) I know to arrange pieces of the construction before building <br> (2) I know how to make a structure using different materials | 1. I can select from and use a range of tools and equipment to safely perform practical tasks (e.g. measuring, cutting, shaping, joining and finishing), with increasing accuracy and success <br> (1) I know which tools work best for folding, joining and rolling <br> (1) I know how to join multiple materials together <br> (1) I know how to use a simple template for cutting out <br> (1) I know how to use simple finishing techniques <br> (1) I know how to measure a textile and cut it out accurately <br> (1) I know how to join textiles together to make a product <br> (1) I know how to use the tools I'm using safely <br> 2. I can select from and use a wide range of materials and | 1. I can select from and use a wider range of appropriate tools and equipment safely to cut, score, fold, shape, mould and join materials with increasing precision <br> (1) I know how to measure and cut out using centimetres <br> (1) I know which tools and equipment and appropriate for the job and how to use them safely <br> (1) I know how to score and fold precisely <br> (1) I know different ways to combine a number of components together <br> (1) I know a range of techniques to shape and mould materials <br> (1) I know a range of ways to join different types of textiles including simple stitches <br> 2. I can create strong and sturdy structures and models with a neat and tidy finish | 1. I can select from a wider range of equipment and tools, explaining the appropriateness, to safely cut, score, fold, shape, mould and join materials in an increasing variety of ways <br> (1) I know how to use equipment with increasing accuracy and safety <br> (1) I know an increased number of ways to join components together e.g. stapling <br> (1) I know ways to create temporary and permanent fastenings to join <br> 2. I can create structures, products and models with strengthened corners and joins and a finish that shows an awareness of audience and product purpose <br> (2) I know the importance of modelling my design before making | 1. I can select from a wider range of equipment and tools, explaining the appropriateness, to safely cut, score, fold, shape, mould and join materials in an increasing variety of ways, precisely <br> (1) I know to cut out in precise detail <br> 2. I can create structures, products and models with joins that will stay strong for a prolonged period of time and an accomplished finish that appeals to the user and product purpose <br> (2) I know ways to ensure the finished product is carefully and precisely finished <br> (2) I know to make improvements as I go that will add to the strength and finish of the product <br> (2) I know which information needs to be given to the user - e.g. ingredients for allergies, | 1. I can select from a wide range of equipment and tools, explaining the appropriateness, to safely cut, score, fold, shape, mould and join materials in an increasing variety of ways, in an accomplished and precise manner <br> (1) I know to cut out in precise detail <br> 2. I can create highquality and strong structures, products and models with an accomplished finish that appeals to the user and product purpose <br> (2) I know ways to ensure the finished product is carefully and precisely finished <br> (2) I know to make improvements as I go that will add to the strength and finish of the product <br> (2) I know which information needs to be given to the user - e.g. ingredients for allergies, |


|  | - Use a range of small tools, including scissors, paintbrushes and cutlery. <br> ELG - Expressive Arts and Design - creating with materials <br> - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. <br> - Share their creations, explaining the process they have used. | (2) I know which pre-cut fabrics to select and why (2) I know my preference when choosing fabrics and can explain this | components, including construction materials, textiles and ingredients, according to their characteristics, to make a construction, with increasing accuracy and success <br> (2) I know some working characteristics of materials and use these to inform my choices (2) I know vocabulary to explain my textile choice | (2) I know to check work by assembling components together before joining <br> (2) I know ways to make models stronger, including altering and adapting materials (2) I know the importance of a neat and tidy finished product and to achieve this through precise cutting and joining when making and when finishing | (2) I know ways to strengthen corners and joins <br> (2) I know an increased range of finishing techniques which show an awareness of audience and purpose (sanding, varnishing, glazing) | an instruction manual or handbook, and do this in an appropriate way | an instruction manual or handbook, and do this in an appropriate way |
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| Evaluate | Expressive Arts and Design <br> - Return to and build on their previous learning, refining ideas and developing their ability to represent them. <br> - Create collaboratively, sharing ideas, resources and skills. <br> ELG Expressive Arts and Designs - Creating with materials <br> - Share their creations, explaining the process they have used. | 1. I can explore and evaluate a range of existing products, saying what is successful and unsuccessful <br> (1) I know vocabulary to describe materials <br> (1) I know the features of a successful product <br> 2. I can begin to evaluate mine and others' ideas and products against a simple design criteria <br> (2) I know how to describe my own work and the work of others <br> (2) I know how my product works <br> (2) I know what my next steps should be | 1. I can explore and evaluate a range of existing products, saying what is successful and unsuccessful, with the target audience in mind <br> (1) I know the importance of evaluating a product (1/2) I know words to describe likes and dislikes when evaluating and describing <br> 2. I can evaluate mine and others' ideas and products, in greater detail, against design criteria, saying what has gone well and how it could be improved based on my own and others' views <br> (2) I know what has gone well and what needs to be improved and why <br> (2) I know the importance of seeking out views and judgements of others and responding to this <br> (2) I know how to predict how changes might | 1. I can investigate and analyse a range of existing products, saying what is successful and unsuccessful, with the target audience in mind <br> (1) I know to consider the target audience when describing what is successful and unsuccessful <br> 2. I can evaluate mine and others' ideas and products, against the design criteria, throughout all stages of the process <br> ( 21 know to evaluate my product as I design and make, adapting as I go <br> (2) I know that evaluating and making changes is a key part of the process <br> 3. I can explain my understanding of how key events and individuals have helped shaped the world (3) I know how key events and individuals | 1. I can investigate and analyse a range of existing products, saying what is successful and unsuccessful, with justification, against the design criteria and audience needs and wishes <br> (1) I know to use the design criteria and audience's needs and wishes to evaluate <br> (1) I know vocabulary to give justifications for my likes and dislikes <br> 2. I can evaluate both the function and appearance of mine and others' products and test improvements before making changes <br> (2) I know to carry out tests before making improvements <br> (2) I know to evaluate both function and appearance <br> 3. I can explain my understanding of how | 1. I can investigate and analyse a range of existing products, describing how well the product fits the purpose, works against the design criteria, meets aesthetic standards, and what specific improvements are needed <br> (1) I know how to evaluate effectively against the design criteria <br> (1) I know to assess how well the product works against the design criteria and how well it meets the intended purpose <br> (1) I know to explain which specific elements need improving and can describe how I would do this <br> 2. I can evaluate mine and others' ideas product against the design criteria, throughout the process, making changes and adaptations as I go, | 1. I can investigate, analyse and test commercial products and a range of different sources of information, explaining, in detail, how well a product fits the purpose, works against the design criteria, meets aesthetic standards, whether further information is needed and what improvements I would make to inform my design process <br> (1) I know to consider whether different materials would improve a product <br> (1) I know to test commercial products and use this information to inform my design <br> (1) I know to evaluate a range of different sources of information (handbooks, advertising) and use this to improve my product |


|  |  |  | improve the finished product | have helped shaped the world (invention/inventor relevant to year group) | key events and individuals have helped shaped the world <br> (3) I know how key events and individuals have helped shaped the world (invention/inventor relevant to year group) | and at the end, refining the finished product <br> (2) I know to continuously evaluate my product as I design and make, considering whether it is effective and fit for purpose <br> (2) I know how to refine the quality of the finished product <br> 3. I can explain my understanding of how key events and individuals have helped shaped the world <br> (3) I know how key events and individuals have helped shaped the world (invention/inventor relevant to year group) | 2. I can evaluate mine and others' products in detail, describing how well the product fits the purpose, works against the design criteria and meets aesthetic standards, whether further information would help and what improvements I would make <br> (2) I know to demonstrate by product is strong and fit for purpose <br> (2) I know to consider whether more or different information would improve my product <br> 3. I can explain my understanding of how key events and individuals have helped shaped the world <br> (3) I know how key events and individuals have helped shaped the world (invention/inventor relevant to year group) |
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| Technical Knowledge | ELG - Creative arts and designs, creating with materials <br> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | 1. I can explore and use mechanisms (for example, wheels and axels) in my products <br> (1) I know technical vocabulary to explain my ideas <br> (1) I know how to make a product that moves <br> (1) I know how some moving objects work (wheels and axels) <br> 2. I can safely build structures, exploring how they can be made | 1. I can explain my choices for tools and materials and how to use them safely using technical vocabulary <br> (1) I know which tools and materials are most appropriate for the task (1) I know the technical vocabulary to explain my choice of tools and materials <br> (1) I know how to use the tools I'm using safely and can explain how to do this | 1. I can choose and use equipment, tools and materials effectively, accurately and safely and can explain this using appropriate vocabulary (1) I know how to use equipment and tools accurately and safely <br> (1) I know which tools, materials and techniques are appropriate to use <br> (1) I know how to measure, cut and assemble with increasing accuracy | 1. I can add a simple circuit with components to my design (1/2) I know how to construct a simple circuit with components <br> 2. I can create a design that uses mechanical components and electricity to create motion or light <br> (2) I know how to use mechanical components to create motion <br> 3. I can create a waterproof design | 1. I can incorporate belts, pulleys and other mechanisms into more complex designs <br> (1) I know how belts and pulleys work (1/2) I know how use mechanisms in my designs <br> 2. I can incorporate hydraulics and pneumatics into designs <br> (2) I know how hydraulics and pneumatics work <br> 3. I can make a prototype to test my ideas | 1. I can apply my understanding to strengthen, stiffen and reinforce complex structures where appropriate <br> (1) I know a range of strengthening, stiffening and reinforcing techniques and the appropriate technical vocabulary related to this <br> 2. I can understand and use mechanical systems in my products with |



