

**GUARDIAN ANGELS' RCPS
PROGRESSION OF KNOWLEDGE**

Year	Learning Journey 1 <i>Mechanisms</i> Final piece – make a card	Learning Journey 2 <i>Structure</i> Final piece – Lego chair	Learning Journey 3 <i>Cooking & Nutrition</i> Final piece – Breakfast including bread Explore – Paul Hollywood
Nursery	Children will know the purpose of a greeting card and how to create a design they find appealing. Children will begin to know how to communicate their ideas and preferences. Children will begin to have the knowledge of selecting the correct tools and materials for the task. Endpoint <i>We want our children to know...</i> Cards are given on special occasions. How to design and make a card.	Children will know that they are building something with a purpose (a chair for a toy). Children will know what materials they can select and how to make something in relation to the size of something else. Children will begin to build a knowledge of creating designs from their ideas and be able to evaluate if their design was a success (did they like it, did a toy fit on?) Endpoint <i>We want our children to know...</i> The structural requirements for a chair. How to design and make a chair the correct size for a chosen toy.	Children will begin to understand what foods are suitable for a breakfast and be able to select from a choice which are healthy and know where they came from (an egg comes from a chicken and is healthy). Children will begin to know that they are creating something that needs to be appealing to others. Children will know they are selecting something based on a design criteria. Children will know how to turn bread into toast and how to spread ingredients on toast. The difference in taste and texture will be explored. Children will know how the amount of time affects the toasting of the bread. Endpoint <i>We want our children to know...</i> That breakfast is the first meal of the day and the importance of making it filling and healthy. How to design and make a breakfast using bread.

Reception	<i>Mechanisms</i> Final piece – Sliding Character Explore – Alex Scheffler Children will know they are designing something based on their likes and dislikes. Children will know that the character will slide across the picture to create a scene from a familiar book. Children will know subject specific vocabulary such as material, tools, cut, and slide. Children will know that they are making something by combining materials and components. Children will know that they are cutting something out to use for another purpose. Endpoint We want our children to know... That characters appear in story books (like The Gruffalo) and can move in some (pop up) books. How to make and design a sliding character from a chosen story.	<i>Structure</i> Final piece – make a picture frame Explore – Virtual Art Gallery. Children will build on their knowledge of designing something based on another product. Children will be able to evaluate designs they like and dislike in order to begin to make their own design. Children will know they need to combine two parts using materials and tools. Children will begin to build the knowledge of what materials will be suitable for sticking their chosen components together. Children will know they are making a picture frame as a gift for someone else. Endpoint We want our children to know... The different pictures and art we keep in frames and why. How to design and make their own picture frame.	<i>Cooking & Nutrition</i> Final piece – Filling breakfast with egg & bread Explore – Mary Berry Children will build on their knowledge of breakfast food stuffs in order to add ingredients to their previous design including bread. Children will know what food is healthy and begin to understand why. Children will know where the different food comes from. Children will know how to boil water to add and cook an egg and know the amount of boiling time affects the boiled egg. Children will know now how to be safe around toasters and boiling water and be taught how to use an egg timer. Children will build on their knowledge of making toast in nursery and develop small tasters of toast to find out which people like best. Know how to butter toast and that the butter can affect the taste. Children will know to explore their likes and dislikes in order to build knowledge of evaluating. Endpoint We want our children to know... That breakfast is the first meal of the day and the importance of making it filling and healthy. Eggs come from chickens and are reared. Eggs are a source of protein. How to design and make a breakfast using bread and eggs.
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Year 1	<i>Mechanisms</i> <i>Final piece – make a moving vehicle</i> <i>Explore – Rolls Royce</i> Children will know they are making a moving vehicle based on a design. Children will know their moving vehicle will include an axel and wheels. Children will know that the vehicle will move by being pushed. Children will know how to saw a wooden dowel and create an axel. Children will know how to select suitable materials to make their vehicle and how they want to make their design unique. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That Rolls Royce made cars and first met in Manchester. That cars move using a wheel and axle mechanism. How to design and make their own moving vehicle.	<i>Textiles</i> <i>Final piece – make a hand puppet</i> <i>Explore – Jim Henson</i> Children will be introduced to the concept of combining soft fabric following on from combining hard materials. Children will know they are following a design and including their own ideas. Children will know how to explore different methods of sticking materials (glue, sticky tape, staples). Children will know how to evaluate their design and make improvements based on their evaluations. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief Endpoint <i>We want our children to know...</i> Jim Henson was famous for designing puppets with varying designs. How to design and make a hand puppet.	<i>Cooking & Nutrition</i> <i>Final piece – make a healthy sandwich</i> <i>Explore – John Mantagu</i> Children will build on their knowledge from Nursery of designing and evaluating a meal. Children will know how to build on their design to include a filling element. Building on their knowledge of where food comes from, children will know that an egg comes from a chicken and how this is different to bread. Children will be introduced to the concept that food is grown, farmed or caught to know that salad is healthy and can be added to a sandwich. Children will know how to spread ingredients on bread and build on this by adding more and evaluating the taste and texture. Children will build on their evaluating skills to evaluate different sandwiches and wraps: whole meal, pitta, different types of bread. From the same filling, learn how the taste of the bread can affect the taste of the sandwich. Build on Reception knowledge and discuss other breads such as baguettes, granary. Discuss and critique sandwich fillings and possible sauces: mayo, lemon juice, ketchup. Discuss other fillings e.g. onion, cucumber, lettuce, spinach, beetroot, radish. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That John Montagu invented the sandwich and why. What constitutes a healthy sandwich and why healthy choices are
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Year 2	<i>Structure</i> Final piece – Baby Bears Chair Explore – The Windsor Chair Children will build on the knowledge of creating a chair from lego, to choosing from a selection of materials to make a chair suitable for a small teddy bear. Children will know they are generating a design for a purpose. Children will know the design elements to include (back, arms, legs). Children will know to select from a range of tools and generate, develop and communicate their ideas through talking, drawing, templates, mock-ups and potentially ICT. Children will know how to evaluate their work and begin to understand how to make improvements to their designs. Children will know how to investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief Endpoint <i>We want our children to know...</i> That chairs have different designs and why. How to design and make a chair the correct size and strength for a chosen teddy bear.	<i>Textiles</i> Final piece – Make a pouch Bruce Oldfield Children will know some methods of joining fabric material from Year 1 – gluing, stapling etc. They will build on this knowledge and know how to join material by using simple stitches. Children will know how to design appealing, functional and purposeful products for themselves and others based on a design criteria. Children will produce a prototype to test their design and build on this with self-identified improvements. Children will decide on the functionality of the pouch and understand what material would be most suitable. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That Bruce Oldfield was a designer famous for designing dresses, especially for Lady Diana. How to design and make a pouch using sewing skills.	<i>Cooking & Nutrition</i> Final piece – vegetarian soup Explore - Dr John T Dorrance Children will know that a variety of food is needed in a healthy and balanced diet. Children will know what nutrition means and know that vegetables are good for the body and begin to know that different vegetables have different vitamins. Children will know the cooking techniques taught in Early Years and will be able to build on these when preparing a vegetarian soup. Children will know that people have different dietary requirements and the reasons for these. They will be able to use this knowledge to create the vegetarian soup. Children will have the knowledge to plan, make and evaluate their recipe. Children will build on their knowledge of preparing salad and boiling an egg to preparing and boiling vegetables to make a soup. Children will know the names of different vegetables: leeks, potatoes, onions, courgettes, peas, beans etc. Know how boiling affects the vegetables. Know where it comes from and how it is harvested. Know the ingredients of a tin of soup and what the ingredients mean. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief.

			Endpoint We want our children to know... That Dorrance made the first condense soup which is a processed food. That soup is a healthy alternative to a sandwich for lunch and if often accompanied with bread. How to design and make their own vegetarian soup, taking into consideration seasonality.
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Year 3	<i>Mechanisms</i> Final piece – Pneumatic Toy Explore – John Boyd Dunlop The children will now develop their skills by being introduced to a more detailed design with multiple design details. Children will develop skill of following a design and evaluating their own in order to make improvements. Children will now that the mouth of their toy will open due to hydraulics and understand the process of pneumatic objects. Children will know other objects that use pneumatics. Children will know how to make a simple pneumatic mechanism to open the mouth of the toy by combining a balloon with a hand pump. Children will know how to evaluate the success and appeal of their design. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That John Dunlop invented the first pneumatic tyre for his child's tricycle. What pneumatic systems are and where they can be found. How to design and made their own pneumatic toy monster.	<i>Structure</i> Final piece – Make a castle Explore – Gaudi (link to Art & Design) Children will use knowledge of existing products to enable them to design their own. Children will know how to create a design using an annotated diagram and/or simple computer programme. Building on from their knowledge of building lego chairs and a chair for baby bear, children will be able to identify suitable materials to be selected and used for a structure, considering weight, compression, tension. Children will know how to recreate a structure that is able to stand unaided. Children will understand the architectural features to include to make their design a castle (turrets, moats, bridges). Children will know how to evaluate their design before building and suggest improvements. Children will be able to evaluate if their design was a success based on their initial plan. Children will know that materials can be manipulated to improve strength and stiffness. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> Who Antonio Gaudi was and what his architecture looks like. What the features of a	<i>Cooking & Nutrition</i> Final piece – To make a hot sweet desert Explore – Jaime Oliver Now that children have combined ingredients to make breakfast and soup they will be taught and know how to combine ingredients to make crumble. Children will know how to rub fat into flour to make breadcrumbs. Children will build upon their knowledge of boiling eggs and vegetables to boiling fruit and the changes that occur in the process. Children will build on their knowledge of healthy vegetables and build on this with fruit. Children will know that there are different fruits and that they are seasonal. Children will know how fruit is picked and grown and look at how dried fruit differs and how this can be processed. Children will Understand about sugars in fruit and how to keep healthy from this. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> How to make a crumble. Who Jaime Oliver is and why he is famous and his link to healthy eating in schools. How to design and make their own crumble, considering seasonality of fruit.
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Year 4	<i>Textiles</i> Final Piece – Book Sleeve with fastening Explore – Heribert Bauer Children will build on their knowledge from making hand puppets and a pouch to creating a product with a fastening. Children will know to use research and develop design criteria to inform their design. The children will know to select their target audience and refine their design accordingly. Children will know to select materials suitable for their product which needs to include a fastening. Children will build on their knowledge of textiles to know how to join the material together (building on their sewing skills). Children will know how to create a design drawing of an exploded diagram with detailed explanations and reasoning. Children will build upon their knowledge of crucial evaluation. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint We want our children to know... That Heribert Bauer invented the first snap button and progressive this was. How to design and make a book sleeve using sewing and applique skills.	<i>Electrical</i> Final Piece – Torch Explore – David Misell Children will know how electricity works from Science (cross curricular). Children will build on their knowledge of materials to understand what would make a suitable casing. Children will know how to make a torch using a simple circuit. Children will know how to design their torch to include a bulb, wires, a switch and batteries. Children will understand how to put the components together in order to create the final product. Children will have an understanding of how the lightbulb and battery changed the world. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint We want our children to know... That David Midell invested the first handheld torch and what this progress meant. How to design and make a working torch.	<i>Cooking & Nutrition</i> Final Piece - Make a pescatarian light healthy lunch. Explore – Peter Durand Now children know about bread, eggs, vegetable and fruit, they will know how fish are caught, reared and processed. Children will explore and know about the process of tinning food. Children will know the names of different pasta shapes and how they are made and processed. Children will know how and where wheat grows. Children will know what garlic is and where it grows. Building on from boiling eggs, vegetables and fruit, children will know how to boil pasta and for how long. Children will know how baking and roasting differs to boiling and the affect this has on their pasta bake and the texture of food. Children will know how to build on their evaluative skills in response to their finished piece. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint We want our children to know... That Durand progressed the industry of processed food by investing the tin can. How to design and make a light lunch for a pescatarian. To know that fish are caught.
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Year 5	<i>Structure & Mechanisms</i> Final Piece – Puppet Theatre Explore – Sydney Smirke Children will be able to evaluate other theatre designs and understand the components needed (frame, backdrop, stage, curtains). Children will build on their knowledge of structure and understand that the shape of materials of a structure affects in strength. Children will know how to design the theatre with the purpose of being used with puppets. Children will know how to use an exploded diagram to show how different pieces connect together. Children will understand the purpose of the frame and explore ways of securing the curtain. Pulley systems for the curtain will be explored and planned. Children will know how to make a simple pulley system. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That Sidney Smirke was the architect who design Bury Met Theatre and other famous buildings. How to design and make a theatre backdrop with a working pulley system for the curtain.	<i>Electricals</i> Final Piece – Electric Steady Hand Game Explore – John Spinello Children will build on their knowledge of electricity (Science) and electrical circuits (Year 4). Children will know what the components of a steady hand game are. They will know how to design a steady hand game of their own according to their design criteria, using four different perspective drawings. Children will know how to make and test a functioning circuit and assemble it within a case. Children will understand that 'fit for purpose' means that a product works as it should and is easy to use. Children will build on their knowledge of exploded diagrams to understand perspectives 'top view', 'side view' and 'back'. Children will understand that the product must be designed primarily with function in mind. Previous knowledge of material selection will be built upon when they design the steady base for the game. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief Endpoint <i>That Spinello invented the game operation. The components of a steady hand game. How to design and make their own steady hand game and test theirs and others'.</i>	<i>Cooking & Nutrition</i> Final Piece – Italian Pasta Dish Explore – Delia Smith Children will build on their knowledge of combining vegetables from Year 2, and their knowledge of pasta meals from Year 4. Children will know how to cook pasta and will now build on this to combine with a sauce. Children will know how to plan their own sauce recipe and build on their evaluation skills as they cook. Children will know how to select healthy foods to include in their recipe. Children will know where tomatoes come from and where they are grown and the difference of fresh and tinned linking to seasonality explored when selecting fruit for a crumble (linking back to knowledge of Peter Durand). Children will be able to link back to knowledge from EYFS to select a bread to accompany the Italian meal. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief Endpoint <i>We want our children to know...</i> Who Delia Smith is and that she is famous for classic recipes. How to design a pasta dish based on recipes from Italy. Make the dish using their progressing skills.
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Year 6	<i>Structure</i> Final Piece - Bridge Explore – Isambard Kingdom Brunel Children will be able to evaluate different bridges and design a bridge for purpose (to take the weight of a toy car between desks). Children will be able to use an exploded diagram to show in detail how the components will fit together. Children will know that the bridge needs to be strong enough to carry the weight and movement. Children will be able to identify stronger and weaker structures with reasons. Children will know the difference between beam, arch, truss and suspension bridges. Children will be able to test and evaluate their design and give suggestions of improvement. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That Brunel designed the Clifton Suspension Bridge and what design features make it unique. The design features of different bridges and the strength requirements. How to design and make their own bridge suitable for supporting a toy car.	<i>Textiles</i> Final piece – Cushion with applique Explore – Orla Kiely (link to Art & Design) Children will build on the knowledge of working with textiles to use research to develop a design criterion in order to create a functional and appealing cushion. They will know that applique is a way of decorating a textile by applying smaller pieces of fabric. The children will know who their target audience is and be able to communicate their design choices with this consideration. Children will know how to use prototypes to test their design and experiment with pattern pieces and cross-sectional diagrams. Children will build on the knowledge of the materials they know from a wider range and make choices based upon their functional properties (will it be strong enough? Is it soft enough?) and aesthetic qualities. Children will know that when two edges of fabric are joined it is called a seam and that products can be turned inside out to hide the stitching. Children will know how to evaluate their product against the initial design and end consumers need. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> Who Orla Kiely is and why she is famous and what her designs look like. How to use their previously taught skills to build more complex sewing skills. How to design and make a cushion which is filled and has applique detail following their final design..	<i>Cooking & Nutrition</i> Final piece – Curry dish with bread accompaniment. Explore – John Landis Mason Now that children have explored, bread, eggs, sandwiches, vegetables, soup, fruit and pasta, they will build on their knowledge of where food comes from and know where chicken, pork, beef and lamb come from. Children will know how the different meats are reared and know how they are processed to be on the supermarket shelves. Children will know how to calculate food miles from different examples of food stuffs. Children will learn about fair trade for animals and meats. In order to know how to create their curry recipe, children will know where and how different spices grow and are harvested. Children will evaluate their own and others food giving confident reasons for likes and dislikes. Children will understand what food accompanies curry and where it comes from (bread and rice). Children will explore the packaging used in supermarkets (jars) and know how to create their own design for their own curry. Children will be able to evaluate a mid-point to make changes to their final design and at the end point against the initial design brief. Endpoint <i>We want our children to know...</i> That Mason invented the first Mason jars and how that impacts the processed foods available today. How to design and make their own curry dish, understanding dietary requirements and seasonality. Design and make suitable
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