

Holy Rosary Catholic Primary School Knowledge and Skills Progression

Years 1 - 6 DT

Year	Term	Scheme of work	Cooking and Nutrition	Technical Knowledge and Skills
1	Autumn	Eat More Fruit and Veg	<ul style="list-style-type: none"> · I can name a variety of fruits and vegetables. · I can use adjectives to describe the taste, smell and texture of a variety of fruits and vegetables. · I know that some fruits and vegetables need to be washed, cut, cored, peeled or grated before they can be eaten. · I understand basic food hygiene, e.g., washing hands, tying long hair back and keeping surfaces clean. · I can use a knife to cut some fruits and vegetables in different ways. · I can grate an apple and a carrot. · I can peel a banana, apple and cucumber. 	<ul style="list-style-type: none"> · Explore a range of fruit and vegetables using their senses. · To design make and evaluate a smoothie or salad fit for purpose or intended audience. · To make their design using appropriate techniques. · To use appropriate tools when making their smoothie/ salad e.g chopping board, knives, blender. · To use simple finishing techniques to improve the appearance of their product.
2	Summer	Perfect Pizzas	<ul style="list-style-type: none"> · I can name a variety of pizza toppings. · I can use the model of the balanced plate to evaluate how healthy different pizzas are. · I can explore different types of bread and evaluate which would work best for a pizza base. · I can identify which food group a variety of pizza toppings belong to. · I can sort pizza toppings into groups based on different criteria, e.g. animal vs plant products. · I can explain why each of the food groups is important for a balanced diet. 	<ul style="list-style-type: none"> · Considering the food groups and the quantity of each that we need for a balanced diet, design a pizza. · Be able to list some safety and hygiene rules that need to be considered when working with food. · Be able to make and evaluate a food product based on a design. · Be able to come up with some adjectives that could be used to describe their pizza (taste, appearance etc)

			<ul style="list-style-type: none"> · I can design and make a healthy pizza following given criteria. · I can evaluate my finished pizza, saying what I think and feel about it. 	
4	Autumn	Seasonal Food	<ul style="list-style-type: none"> · I can explain what the term 'seasonal food' means. · I know that different parts of the world have different seasonal food. · I can discuss the benefits and problems of unseasonal food being available in shops all year round. · I know that some foods, like wheat, are available all year round in the UK. · I can practise cooking skills including slicing, dicing, beating, whisking, folding, sieving, rolling and grating. · I can follow a recipe to make fairy cakes. · I can describe the cycle of wheat production in the UK. · I can distinguish between fruits that are grown in the UK and those that are grown abroad. · I know how food producers can speed up or slow down the ripening process to make fruits and vegetables available all year round. · I can follow a recipe to make fruit tarts using seasonal fruit. · I can follow a recipe to make stuffed peppers. · I know some of the nutrients we get from fruits, vegetables, meat, fish and dairy 	<ul style="list-style-type: none"> · Either cook or learn about the process of wheat production. · Learn how a variety of fruits are grown in the UK and how the farming process speeds up or slows down the ripening process. · Learn about vegetables grown in Britain, when they are in season and why they are important for a healthy diet. · Children will learn about the nutritional value of meat, eggs and dairy products. · Follow a simple recipe to create a meal.

			<p>products.</p> <ul style="list-style-type: none"> - I know when certain meats are in season in the UK, and which are available all year round. - I can follow a recipe to make meatballs. - I know some vegetarian options that provide the same nutrients as meat. - I can explain how fish are caught or reared, processed and used in healthy meals. - I can use what I have learnt about seasonal food to design healthy meals and menus. 	
5	Autumn	Burgers	<ul style="list-style-type: none"> - I know that most foods we buy have nutrition labels to help us make informed choices about what we eat. - I know that calories come from fats, proteins and carbohydrates. - I can evaluate how healthy a burger is based on its nutrition label. - I can compare different burgers and assess which is healthiest. - I can explain some of the different ways in which burger patties are cooked. - I can follow a recipe to make a beef, turkey or vegetable burger patty. - I can add ingredients to a basic burger patty to reflect global cuisine. - I can follow a recipe to make different burger sauces, including salsa, tzatziki and barbecue sauce. - I can design a burger menu to incorporate different patties, sides and sauces. 	<ul style="list-style-type: none"> - Explain why nutrition facts are important to read. - Knowing that better food choices can make us healthier. - Read tables to interpret information and answer questions. - Mix ingredients accurately. - Record information from tests carried out. - Explain the cooking skills required when preparing and cooking a burger. - Make a simple sauce for a burger. - Make informed decisions to choose appropriate ingredients needed to make a burger. - List the equipment and ingredients needed to make a burger. - Follow a plan to make a burger. - Use cooking utensils and equipment correctly. - Evaluate a cooking session and my own skills.

			<ul style="list-style-type: none"> · I can explore, taste and assess different types of bread and their suitability for a burger bun. · I can offer suggestions for some alternatives for bread. · I can add mixtures of herbs and spices to a basic bread dough to make flavoured burger buns. · I can design a burger for a particular purpose. · I can design a burger for someone with particular dietary requirements. · I can make and evaluate a burger, following my recipe and design. 	
6	Summer	Great British Dishes	<ul style="list-style-type: none"> · I know that national dishes are an important part of the nation's identity and self-image. · I know that they are usually made from locally available food stuff and may contain exotic ingredients that are only found in that area. · I know that the type of ingredients available is determined by the climate and current season. · I am able to name some traditional great British savoury meals (traditional English breakfast, roast dinner, toad in the hole, fish and chips, Cornish pasty, cottage pie). · I am able to name some traditional great British sweet meals (bakewell tarts, battenburg cake, banoffee pie). · I understand that generally, savoury foods are healthier than sweet foods and I have an understanding of the nutritional reasons why. · I am able to name some traditional dishes associated with Scotland and Wales. 	<ul style="list-style-type: none"> · List some health and safety rules that are needed when preparing and cooking. · List some rules that are important when cleaning up after preparing and cooking. · Follow a recipe to gather what is needed to prepare the dish. · Follow the steps in a recipe to create a dish. · Be able to make a shopping list for making a particular meal. · Consider the shelf life of products when planning a shopping list. · Understand the difference between best before and use by.

Year	Term	Scheme of Work	Stable Structure	Technical Knowledge and Skills
1	Spring	Homes	<ul style="list-style-type: none"> · I can recognise different types of homes and their features. · I can identify and name shapes within houses. · I can draw a house using a variety of shapes. · I can decide what materials to use for a particular purpose. · I can select and use a variety of techniques for joining things together successfully. · I can suggest ways of improving a structure to make it stronger. · I can make effective hinges. · I can choose materials and joining methods when making furniture. · I can gather and develop ideas to decorate the interior of a house. · I can design a house for a particular person or purpose. · I can apply learning to design a house. · I can select materials and tools to make a house. · I can follow a design to make a house. <p>I can follow a design to make my house and evaluate its overall effectiveness.</p>	<ul style="list-style-type: none"> · Create a design for a home that they will make including some labels and information about what they will use/ how they will join the materials. · Manipulate materials to create 3D shapes that can be joined to make part of a house and ultimately joined together to make a full house. · Use materials to make walls, doors etc. to enhance the interior of their homes. · Use materials to make furniture to enhance the inside of the house.
2	Spring	Wacky Windmills	<ul style="list-style-type: none"> · I understand that a wide base helps to make a structure more stable. · I understand what the inside of a windmill looks like. · I understand why certain shapes are chosen in the designing of windmills based on what is 	<ul style="list-style-type: none"> · Begin to think what materials we can use to create structures and windmills at a small scale than the real ones that we initially look at. · Be able to join materials that fly well in the wind to make windmill sails. · Be able to use materials available to us to make a small

			<p>inside.</p> <ul style="list-style-type: none"> · I am able to explain how different materials in different types of windmills are joined together. · I understand how windmill sails spin and how they work. · I am able to list some materials that fly well in the wind. · I know that materials are deigned differently depending where they are located. Be able to recognise some features of windmills in America, Europe, Asia and Australia. 	<p>scale windmill.</p> <ul style="list-style-type: none"> · Be able to add designs, patterns and features to the model to make it look more realistic. · Evaluate their design and talk about its overall effectiveness.
3	Summer	Making Mini Greenhouses	<ul style="list-style-type: none"> · I know what a greenhouse is and how they work. · I can explore a range of different greenhouses. · I know how greenhouses are used today. · I can explain how the shape of a structure affects its stability. · I know that the weight of the structure needs to be evenly spread on the base to make it secure. · I know that the wider a structure's base is, the more stable it will be. · I can use 3D nets to explore potential structures for a greenhouse, assessing their stability. · I can investigate ways of making a structure more stable, e.g., by inserting dowelling or adding triangles at the joins. · I can experiment with a range of 	<ul style="list-style-type: none"> · Be able to recognise what shape will be best for a 3D mini greenhouse. · Be able to explain how you can make this shape a stable structure. · Be able to explain what materials would be best for the frames and for the parts within the frames. · Explain how to use different materials to create an airtight seal. · Explain how your design will allow access for watering the plants. · Explain how your design will allow ventilation in the hot weather. · Understand that somethings may change during the creating and that that is ok if it is helping to improve the design.

			<p>materials to test which would be most appropriate for making the structure of a mini greenhouse.</p> <ul style="list-style-type: none"> · I can design a mini greenhouse using specific design criteria. · I can select appropriate tools and materials to make a mini greenhouse. · I can follow my design to make a mini greenhouse. <p>I can evaluate my finished mini greenhouse for stability, effectiveness and visual appeal.</p>	
6	Spring	Bird House Builders	<ul style="list-style-type: none"> · I can investigate the appearance and function of a variety of different bird houses. · I can identify what materials have been used to construct a variety of bird houses and suggest how the parts have been joined together. · I know what a flat pack diagram is and can use it to identify each part of a structure. · I can create a flat pack diagram of a constructed bird house. · I can draw an exploded diagram. · I can identify the tools associated with basic woodworking. · I can measure, clamp, saw, sand and join wood. · I can use a hand drill to drill a hole in a piece of wood. · I know the safety rules I need to follow when doing woodworking. 	<ul style="list-style-type: none"> · Know that bird houses are made from particular materials and have certain features to attract specific types of birds. · Begin to think about how a birdhouse can be attached to items available in nature. · Begin to think about the reasons for designs, materials (and their features waterproof etc.) and features in birdhouses. · Think about features that can be included in a bird house design that enhance the decoration but are also functional. · Recognise and know how to use some simple tools used in woodworking. · Know and be able to attempt some of the key skills involved in wood work e.g. measuring, clamping and cutting, sawing, sanding and joining wood. · Be aware of the safety rules involved in woodworking. · Be able to design a bird house for a specific bird based on information given about the birds likes and dislikes. · Use a plan to create an item.

			<ul style="list-style-type: none"> · I can design a bird house for a particular bird, taking into account the bird's needs. · I can select appropriate tools and materials to use when making a bird house. · I can create a sturdy bird house frame using wood. · I can evaluate my finished bird house, taking into account the views of others to improve my work. <p>I can use observation to evaluate the effectiveness of my bird house.</p>	
Year	Term	Sceheme of Work	Programming and Electrical Systems	Technical Knowledge and Skills
3	Spring	Light Up Signs	<ul style="list-style-type: none"> · I can explore and analyse illuminated signs. · I can create a simple circuit with incandescent bulbs and a switch. · I can describe the difference between an LED and an incandescent light bulb. · I can create a simple circuit with an LED bulb and a resistor. · I can make a circuit with a string of LED lights. · I can design an illuminated light box against a set of design criteria. · I can select materials, tools and components to create a free-standing structure. · I can make a stable, free-standing structure to house an electrical circuit. · I can strip, twist and join wire to make permanent connections. · I can insert an electrical circuit into a free- 	<ul style="list-style-type: none"> · Begin to discuss and explain how a circuit could be placed in a sign for aesthetic reasons. · Be able to create a design for a decorative illuminated sign considering what components would be needed to make it work. Also considering what components you would like to be hidden and what would need to be on show to work the device. · Follow a design criteria to create a light box. · Be able to select and use tools equipment, materials and components to make the enclosure of a decorative illuminated sign. · Be able to list some pros and cons to using scrap material that is already constructed to create their light box. · Be able to construct a working circuit with one or more lights and fit it in a decorative illuminated sign.

			<p>standing structure to create an illuminated light box.</p> <p>I can evaluate the effectiveness of my finished product against the design criteria.</p>	
4	Summer	Torches	<ul style="list-style-type: none"> · I know that there are many different types of torches and that they are used for different purposes. · I know that torches are made using a simple circuit consisting of a battery, bulb and switch. · I know that torches have reflectors behind them to make them more powerful. · I know that a simple circuit works by a flow of electricity. The energy from the battery travels through the wires and the energy lights the bulbs. · I know that it is not only a wire that can conduct electricity but that lots of other metal components can conduct electricity. 	<ul style="list-style-type: none"> · Understand that the casing for a torch must be a material that is safe to use and that can fit the circuit inside. · To have some ideas about how to design a torch that is fit for it's purpose. · Be able to list some safety instructions for designing and creating a safe torch. · Be able to list the materials needed to create a simple torch. · Consider the aesthetics of the torch when designing. · Be able to evaluate a finished product against a design criteria.
Year	Term	Scheme of Work	Mechanical Systems	Technical Knowledge and Skills
1	Summer	Moving Pictures	<ul style="list-style-type: none"> · I can identify the direction of movement in a sliding mechanism. · I can investigate different ways of making sliders. · I understand the terms 'lever' and 'pivot'. · I can combine and join materials to make lever Mechanisms. · I can generate ideas for different ways of 	<ul style="list-style-type: none"> · Know that a slider is made by cutting a slice in a piece of card, cutting the object you want to move out, making a handle, joining the two together and then using the handle to move the object along the slice. · Have an understanding of how a pivot and a lever work together to allow objects to move in unison. Understand that where the pivot is placed affects the movement. · Understand that the paper fastener must go into the holes in both the lever and the pivot in order to allow

			<ul style="list-style-type: none"> using lever mechanisms in moving pictures. · I can describe what a pivot is. · I can cut out and join components to create a wheel mechanism. · I can discuss ideas for how they could incorporate moving mechanisms into pictures. · I can draw on previous experience of moving mechanisms to design a moving picture. · I can convey in pictures and words how they will create their moving picture. · I can follow a design to create a picture with a moving mechanism. · I can work safely with a variety of tools and materials to create a moving mechanism. · I can identify ways in which they can improve my finished products. 	<ul style="list-style-type: none"> them to move together. · Understand how a wheel mechanism can be created using a pivot and that it can make the object it is being used on more diverse. · Be creative when designing a story that could incorporate a moving picture. · Design, carry out and assess their own moving picture.
3	Autumn	Storybooks	<ul style="list-style-type: none"> · I can explore moving parts in storybooks, suggesting how they work and what purpose they serve. · I can explain what the words 'linkage', 'pivot', 'rotate' and 'lever' mean. · I can use a paper concertina to make an object pop out of a book. · I can arrange and stick paper between pages to create a pop-out. · I can use levers to create moving parts. · I can create moving wheel mechanisms to create different effects. · I can experiment with different fonts and 	<ul style="list-style-type: none"> · Cut and shape materials with some prevision to make their mechanisms work. · Join and combine materials and components in a variety of ways. · Mark out and measure accurately . · Explain what designs they like the most and why. · Create a design for a particular purpose. · Choose suitable mechanisms to create moving parts in their story books. · Create pages that are neat, accurate and creative.

			<p>graphic design features.</p> <ul style="list-style-type: none"> · I can design pages of a storybook to include moving mechanisms and appropriate graphic features. · I can follow my designs to create a storybook with moving mechanisms. · I can evaluate how well my moving mechanisms work. · I can evaluate the overall effectiveness of my storybook. 	
5	Spring	Chinese Inventions	<ul style="list-style-type: none"> · I explore how different transmissions create different movements. · I can use a crank to change the motion on a transmission from circular to linear motion. 	<ul style="list-style-type: none"> · Children to be able to evaluate a products advantages and disadvantages. · Children to be able to follow simple instructions to construct a product. · Children to be able to identify properties of a selection of materials. · Children to be able to select a particular material to suit a specific design. · Children to follow a design criteria when designing a product. · Children to be able to write and follow a design criteria for a particular product and use previous prototyping to apply to their design process.

5	Summer	Making African Instruments	<ul style="list-style-type: none"> · I can name a variety of traditional African musical instruments. · I can investigate and analyse a range of African Instruments. · I can present information about African instruments in a clear and detailed way. · I can identify suitable materials to make the keys of a kalimba. · I can generate success criteria based on previous research and observations. · I can identify how a kalimba makes sound and how the pitch is changed. · I can follow a design to create a kalimba. · I can select appropriate materials and tools to create a kalimba. · I can offer suggestions and alternatives when faced with a challenge when making a kalimba. · I can describe what a percussion instrument is and how it is played. · I can identify areas in which a design will need to be strengthened or reinforced. · I can suggest different methods to strengthen or reinforce my designs. · I can use existing examples of percussion instruments to draw inspiration. · I can follow my designs to make a functional instrument. · I can create an effective overall decoration for my African-inspired instrument. 	<ul style="list-style-type: none"> · Give a brief description of how a kalimba is made and how each part of it affects the sounds it makes. · Give a brief description of how someone who play a kalimba mentioning how the length of the keys affects the sound/ pitch. · Be able to explain the importance of the keys being attached securely. · Answer a list of questions to help to design their own kalimba. · Be able to select appropriate tools and materials to create a kalimba. · Create a design brief to make their own kalimba ensuring that it keeps similar features to a real one so that it makes sounds in a similar way. · Use their instruments to create a performance.
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			I can follow my design to create a kalimba and evaluate a performance based on the functionality of the instruments.	
Year	Term	Scheme of Work	Textiles	Technical Knowledge and Skills
2	Autumn	Delightful Decorations	<ul style="list-style-type: none"> · I know what a decoration is, name some examples and discuss when they can be used. · I understand what it means to evaluate. · Recall the materials, tools and skills involved in sewing two materials together. · Understand that there are different types of stitches e.g. the running stitch and the over stitch. · I understand that different stitches are best used for different materials and different purposes. 	<ul style="list-style-type: none"> · Cut lines and shapes accurately to match their design. · Use the tools needed for sewing safely and sensibly. · Sew two materials together. · Attach buttons and other decorative materials onto a piece of fabric. · Describe what materials, tools and skills they will need to make their decoration. · Describe the steps they will need to build their decoration. · Follow a design to make a decoration.
4	Spring	Money Containers	<ul style="list-style-type: none"> · I can explain the difference between the function and visual appeal of a product. · I can evaluate the function and visual appeal of a variety of Christmas stockings. · I can use pins to temporarily fasten two pieces of fabric together. · I can use running stitch, back stitch, over stitch and zigzag stitch to join two pieces of fabric together. · I can hide the finishing knot. · I can identify a variety of decorative techniques that have been used to decorate Christmas stockings. · I can sew a button, bead, sequin or pipe cleaner onto a piece of fabric. 	<ul style="list-style-type: none"> · Be able to thread a needle with some adult support or guidance. · Be able to complete a simple running stitch with some adult support. · Be able to complete a simple back stitch with some adult support. · Be able to complete a simple over sewing stitch with some adult support. · Be able to list some of the safety rules involved in using needles. · Be able to look at a money container and give an explanation for how it is made including what materials are used, what components it has and how it is fastened and decorated. · Be able to design and make a money container thinking about what material, what components it will have,

			<ul style="list-style-type: none"> · I can embroider shapes and patterns into a piece of fabric. · I can use appliqué to add decoration to a piece of fabric. · I can design a Christmas stocking incorporating a range of decorative techniques. · I can use a template to cut out front and back pattern pieces. · I can follow a design to create a Christmas stocking. · I can evaluate the function and visual appeal of my finished Christmas stocking. 	<ul style="list-style-type: none"> · how to fasten it and how to decorate it. · Answer a set of questions to evaluate their money container.
6	Autumn	Funky Furnishings	<ul style="list-style-type: none"> · I know that Cushions were not always a household item. They were once only luxury items owned by the rich and famous. · I know that they began to transform into softer pieces at the time of the Jin Dynasty in China. They began to cover the hard cushions with materials to make them softer. · I know that after the industrial revolution cushions were no longer luxury items. The producing, dyeing of fabric became quicker and cheaper meaning that cushions became more affordable. · I am able to recognise some common stitches; running stitch, back stitch, zig zag stitch. 	<ul style="list-style-type: none"> · Understand that when sewing two pieces of material together to make a cushion it is important that they are the same size. · Be able to have a discussion about how the design of the cushion makes it fit for its purpose and aesthetically pleasing for it's user. · Consider if you want the stitching to be hidden or whether you want them on show as part of the design. · Know how to finish a stitch with a knot. · Be able to list some ways of fastening some materials. E.g. envelope fold, snap fasteners, buttons with button holes.

Year	Term	Scheme of Work	Inventions and Achievements	Technical Knowledge and Skills
5	Spring	Chinese Inventions	<ul style="list-style-type: none"> . I can explain how the invention of paper helped shape the world. . I can explain the traditional method for making paper. . I can test a variety of types of paper for strength, absorbency, opacity, etc. . I can make recycled paper. . I know how gunpowder was invented. . I can explain how the invention of gunpowder helped shape the world. . I can explain how the invention of the compass changed the world. . I can make a hanging/floating compass. . I can design and label my own compass. . I can explain what water-powered machines are and how they helped change the world. . I can explain why kites were first invented and how they were made. . I can make a variety of kite prototypes and test their effectiveness. . I can design, make and evaluate a kite according to specific design criteria. 	*As above