



St Patrick's Catholic Primary School DT Curriculum



	Advent Term		Lent Term		Pentecost Term	
Foundation stage 1	Box modelling Joining	Materials - using different construction materials	Box modelling - constructing enclosures	Materials - collage	Box modelling Joining different materials and textures	Materials Joining materials and textures
Foundation stage 2	Box modelling - Joining	Materials - Textures	Box modelling - Refining	Materials - collage	Box modelling - selecting appropriate tools and explaining process used	Materials - experiment with design and explain process used
Year 1	Structures Constructing a windmill		Textiles Puppets		Food Smoothies	
Year 2		Structure Chairs		Mechanisms Fairground wheel		Mechanisms Making a moving monster
Year 3	Food Eating seasonally		Digital world Electronic charms		Structures Constructing a castle	
Year 4		Structure Pavilions		Mechanical systems Making a slingshot car		Electrical systems Torches
Year 5	Electrical systems Greeting cards		Mechanical systems Pop up books		Food What could be healthier?	
Year 6		Textiles Waistcoats		Structure Playgrounds		Digital world CAD's



Year 1	Topic Coverage
Advent	DT - Structures - Constructing Windmills NC: Design and create their own structure and functioning windmill
Lent	DT - Textiles - Puppets NC: Learn the different ways they can join fabrics together through the creation of a puppet
Pentecost	DT - Food - Fruit and vegetables NC: Learn how to identify fruits and vegetables. Then apply this knowledge to design and make a smoothie
Year 2	Topic coverage
Advent	DT - Structures - Baby bear's chair NC: Experiment with different shapes and manipulate materials to explore and evaluate a range of structural properties. They apply this knowledge to their own design, make and test task
Lent	DT - Mechanisms - Fairground wheel NC: Explore existing mechanisms in order to design, test and make their own big wheel style ride.
Pentecost	DT - Mechanisms - Making a moving monster NC: Analyse existing levers and linkage systems to identify components that they can use to plan, design and develop a mechanical monster.
Year 3	Topic Coverage
Advent	DT - Food - Eating seasonally



	NC: Learn about seasonality and how the climate a food is grown in can alter the way it tastes and make a crumble and tart using seasonal ingredients.
Lent	DT - Digital world - electronic charm
	NC: Design, develop a program, house and promote a micro: bit electronic charm to use in low light conditions
Pentecost	DT - Structures - Constructing a castle
	NC: Learn more advanced construction techniques and plan for complex arrangements of structures with continual emphasis on evaluating throughout
Year 4	Topic Coverage
Advent	DT - Structure - Pavilions
	NC: Be introduced to pavilion architecture, pupils experiment with frame structures before designing their own landscape and pavilion using a wider range of materials and construction techniques.
Lent	DT- Mechanical systems - Making a slingshot car
	NC: Use kinetic energy to power slingshot cars, designing and making their own and testing their effectiveness
Pentecost	DT - Electrical systems - Torches
	NC: Be introduced to electricity and electrical safety before making a simple circuit to create a functioning torch.
Year 5	Topic Coverage
Advent	DT - Electrical systems - Electronic greetings cards
	NC: Explore electrical circuits and apply this knowledge to design and make their own electric greetings card
Lent	DT - Mechanical systems - Making a pop-up book
	NC: Utilise a range of mechanisms and construction techniques to create a pop up story book for younger children
Pentecost	DT - Food - What could be healthier



	NC: Adapt a Bolognese recipe by adding or altering ingredients and learning and the ethical and hygienic issues of good
Year 6	Topic Coverage
Advent	DT - Textiles - Waistcoats NC: Learn how to measure, cut and assemble fabric to create a waistcoat. They will draw a design in accordance with their own design criteria
Lent	DT - Structure - playgrounds NC: Have the opportunity to be creative and experiment with a wide range of materials and equipment, applying prior knowledge of net and frame structures as well as bracing and cladding to design and make a playground
Pentecost	DT - Digital world - Navigating the world NC: Design and programme a navigation tool to produce a multifunctional device for trekkers using CAD 3D modelling software. Pitch And explain the product to a guest panel.



Progression in DT

Expressive arts and design: Being imaginative and expressive		
ELG: Invent, adapt and recount narratives and stories with peers and their teacher, sing a range of well know nursery rhymes and songs, perform songs, rhymes poems and stories with others and (when appropriate) try to move in time with music.		
3 & 4 year olds		
Advent	Lent	Pentecost
<ul style="list-style-type: none"> • Know how to begin to use representation to communicate, e.g. drawing a line and saying 'That's me.' • Know how to make-believe by pretending (starting to) • Know how to take part in simple pretend play, using an object to represent something else even though they are not similar. 	<ul style="list-style-type: none"> • Know how to listen with increased attention to sounds. • Know how to respond to what they have heard, expressing their thoughts and feelings. • Know how to remember and sing entire songs. • Know how to sing the melodic shape (moving melody, such as up and down, down and up) of familiar songs. • Know how to notice what adults do, imitate what is observed and then do it spontaneously when the adult is not there. • Know how to engage in imaginative role-play based on own first-hand experiences. 	<ul style="list-style-type: none"> • Know how to develop preferences for forms of expression. • Know how to use movement to express feelings. • Know how to create movement in response to music. • Know how to sing to myself and makes up simple songs. • Know how to sing the pitch of a tone sung by another person ('pitch match'). • Know how to create their own songs, or improvise a song around one they know. • Know how to make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Know how to develop complex stories using small world equipment like animal sets, dolls and dolls houses etc. (starting to)
Reception		
Advent	Lent	Pentecost



<ul style="list-style-type: none"> • Know how to sing to myself and makes up simple songs. • Know how to engage in imaginative role-play based on own first-hand experiences. • Know how to notice what adults do, imitating what is observed and then doing it spontaneously when the adult is not there. • Know how to develop storylines in their pretend play. • Know how to build stories around toys, e.g. farm animals needing rescue from an armchair 'cliff'. • Know how to use available resources to create props to support role-play. 	<ul style="list-style-type: none"> • Knows how to develop preferences for forms of expression. • Know how to use movement to express feelings. • Know how to create movement in response to music. • Know how to watch and talk about dance and performance art, expressing their feelings and responses. • Know how to explore and engage in music making and dance, performing solo or in groups. 	<p>ELG: Being Imaginative and Expressive</p> <p><i>Children at the expected level of development will:</i></p> <ul style="list-style-type: none"> • Invent, adapt and recount narratives and stories with peers and their teacher; • Sing a range of well-known nursery rhymes and songs; • Perform songs, rhymes, poems and stories with others, and -when appropriate -try to move in time with music.
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<p align="center">Fine Motor Skills</p>		
<p align="center">ELG: Hold a pencil effectively in preparation for fluent writing (using the tripod grip in almost all cases. Use a range of small tools, including scissors, paintbrushes, and cutlery, begin to show accuracy and care when drawing.</p>		
<p align="center">3 & 4 year olds</p>		
<p align="center">Advent</p>	<p align="center">Lent</p>	<p align="center">Pentecost</p>
<ul style="list-style-type: none"> • Know how to use a fist grip or fist grip comfortably. • Know how to use a palmer grasp and four-finger grip. 	<ul style="list-style-type: none"> • Know how to pick up tiny objects using a fine pincer grasp. • Know how to make simple models using construction toys. 	<ul style="list-style-type: none"> • Know how to hold a pencil near the point between first two fingers and thumb and use it with good control • Know how to start eating independently and learning how to use a knife and fork



	<ul style="list-style-type: none"> • Know how to use one-handed tools and equipment, for example, making snips in paper with scissors. • Know how to use a comfortable grip with good control when holding pens and pencils. (Following the stages of grip development document) • Know how to show a preference for a dominant hand. 	<ul style="list-style-type: none"> • Know how to be increasingly independent as I get dressed and undressed, for example, putting coats on and doing up zips • Know how to use pincers, tweezers and threading equipment with increasing control and confidence. (Literacy)
Reception		
Advent	Lent	Pentecost
<ul style="list-style-type: none"> • Know how to use a pincer grasp. 	<ul style="list-style-type: none"> • Know how to show a preference for a dominant hand. • Know how to develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for 	<p>ELG: Fine Motor Skills</p> <p><i>Children at the expected level of development will:</i></p>



	<p>drawing and writing, paintbrushes, scissors, knives, forks and spoons</p> <ul style="list-style-type: none">• Know how to develop the foundations of a handwriting style which is fast, accurate and efficient	<ul style="list-style-type: none">• Hold a pencil effectively in preparation for fluent writing -using the tripod grip in almost all cases.• Use a range of small tools, including scissors, paint brushes and cutlery.• Begin to show accuracy and care when drawing.
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	Substantive Knowledge Children will:	Disciplinary knowledge Children will know how to:	Vocab
<p>Y1 Advent DT - Structures - Constructing Windmills</p> <p>NC: Design and create their own structure and functioning windmill</p>	<p>Know what an axle is</p> <p>Know that axles are used in structures and mechanisms to make parts turn in a circle</p> <p>Know what a turbine is</p> <p>Know that windmill turbines use wind to turn and make the machines inside work</p> <p>Know and understand what stable means and ensure the structure has this property</p> <p>Know that cylinders are a strong type of structure that are often used for windmills and lighthouses</p> <p>Know that the shape of materials can be changed to improve the strength and stiffness of structures</p> <p>Know about individual preferences and requirements in designs</p> <p>Know what a windmill is</p> <p>Know about and describe the purpose of structures</p>	<p>How to make a stable structure</p> <p>How to follow instructions to cut and assemble the supporting structure of the windmill</p> <p>How to assemble the components of the structure</p> <p>How to cut and assemble the turbine correctly</p> <p>How to attach the turbine to the axle and attach them to the structure of the windmill</p> <p>How to evaluate the project and adapt the design</p> <p>How to evaluate the windmill according to the design criteria</p> <p>How to test whether the structure is strong and stable and reinforce it if necessary</p> <p>How to test whether the turbine turns in the structure and alter the parts if it doesn't</p> <p>How to test whether the turbine turns freely in the wind/when blown on</p>	<p>Windmill, structure, support, design, axle, circle, turbine, stable, assemble, cylinders, materials, instructions, components, test, freely, reinforce, evaluate, adapt, design criteria</p>



	<p>Know what a supporting structure is</p> <p>Know about the importance of clear design criteria</p>		
<p>Y1 Lent</p> <p>DT - Textiles - Puppets</p> <p>NC: Learn the different ways they can join fabrics together through the creation of a puppet</p>	<p>Know that 'joining technique' means connecting two pieces of material together.</p> <p>Know that there are various temporary methods of joining fabric by using staples, glue or pins.</p> <p>Know and understand that different techniques for joining materials can be used for different purposes.</p> <p>Know and understand that a template (or fabric pattern) is used to cut out the same shape multiple times.</p> <p>Know that drawing a design idea is useful to see how an idea will look</p>	<p>Use a template to create a design for a puppet</p> <p>Cut fabric neatly with scissors</p> <p>Use joining methods to decorate a puppet</p> <p>Sequence steps for construction</p> <p>Reflect on a finished product, explaining likes and dislikes</p>	<p>decorate design fabric glue model hand puppet safety pin staple stencil template</p>
<p>Y1 Pentecost</p> <p>DT - Food - Fruit and vegetables</p> <p>NC: Learn how to identify fruits and vegetables. Then apply this knowledge</p>	<p>Know the names of a number of fruits and vegetables</p> <p>Know that some foods we call vegetables are actually fruits</p> <p>Know that fruit contain seeds and vegetables do not. Vegetables are the root, stem or leaves.</p>	<p>Determine if something is a fruit</p> <p>Determine if a food is a fruit or a vegetable roots or stem</p> <p>Use senses to suggest fruits and or vegetables in a drink</p>	<p>Fruit</p> <p>Vegetable</p> <p>Seed</p> <p>Leaf</p> <p>Root</p> <p>Stem</p> <p>Smoothie</p> <p>Ingredients</p>



<p>to design and make a smoothie</p>	<p>Know that fruits and vegetables grow in one of three places: on trees or vines, above the ground, below the ground</p> <p>Know what a smoothie is and what a smoothie normally has in it/contains</p> <p>Know the importance of hand washing and washing fruit and vegetables before eating them</p> <p>Know how to safely prepare fruit and vegetables - peeling, slicing, chopping</p>	<p>Design a smoothie</p> <p>Use a knife to cut safely</p> <p>Use a blender</p> <p>Make a smoothie</p> <p>Follow instructions</p>	<p>Peeling</p> <p>Slicing</p> <p>Chopping</p> <p>Blender</p> <p>Flavour</p> <p>Design</p>
	<p>Substantive Knowledge Children will know:</p>	<p>Disciplinary knowledge Children will know how to:</p>	<p>Vocab</p>
<p>Y2 Advent DT - Structures - Baby bear's chair</p> <p>NC: Experiment with different shapes and manipulate materials to explore and evaluate a range of structural properties. They apply this</p>	<p>Know that shapes and structures with wide, flat bases or legs are the most stable.</p> <p>Know and understand that the shape of a structure affects its strength.</p> <p>Know that materials can be manipulated to improve strength and stiffness.</p>	<ul style="list-style-type: none"> • Generate and communicate ideas using sketching and modelling • Identify different types of structures, found in the natural world and in everyday objects • Make a structure according to design criteria • Create joints and structures from paper/card and tape • Explore the features of structures • Compare the stability of different shapes • Test the strength of own structures • Identify the weakest part of a structure 	<p>design criteria</p> <p>man-made</p> <p>natural</p> <p>properties</p> <p>structure</p> <p>stable</p> <p>shape</p> <p>model</p> <p>test</p>



<p>knowledge to their own design, make and test task</p>	<p>Know that a structure is something which has been formed or made from parts.</p> <p>Know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</p> <p>Know that a 'strong' structure is one which does not break easily.</p> <p>Know that a 'stiff' structure or material is one which does not bend easily</p>	<ul style="list-style-type: none"> • Evaluate the strength, stiffness, and stability of own structure 	
<p>Y2 Lent DT - Mechanisms - Fairground wheel</p> <p>NC: Explore existing mechanisms in order to design, test and make their own big wheel style ride.</p>	<p>Know that mechanisms are a collection of moving parts that work together in a machine</p> <p>Know how a wheel Mechanism works</p> <p>Know how axels help wheels to move a Vehicle</p> <p>Know that materials have different properties.</p> <p>Know that bricks are made from clay, they are stiff and strong</p> <p>Know that wood comes from trees. It is strong and flexible</p> <p>Know that metal comes from ore, it is mined underground and it is strong and hard.</p>	<p>Select a suitable linkage system to produce the desired motions</p> <p>Design a wheel</p> <p>Select appropriate materials based on their properties</p> <p>Make linkages using card for levers and split pins for pivots</p> <p>Experiment with linkages adjusting the widths, lengths and thicknesses of card used</p> <p>Cut and assemble components neatly</p> <p>Select materials according to their characteristics</p> <p>Follow a design Brief</p> <p>Evaluate own designs against design criteria</p> <p>Use peer feedback to modify a final design</p> <p>Evaluate different designs</p> <p>Test and adapt a design</p>	<p>Design, design criteria, wheel, ferris wheel, pods, axle, axle holder, frame, mechanism</p>



<p>Y2 Pentecost DT - Mechanisms - Making a moving monster</p> <p>NC: Analyse existing levers and linkage systems to identify components that they can use to plan, design and develop a mechanical monster.</p>	<p>Know that mechanisms are a collection of moving parts that work together in a machine</p> <p>Know that there is always an input and output in a mechanism</p> <p>Know what an axel and a wheel are</p> <p>Know what a pivot is</p> <p>Know that a lever is something that turns on a pivot</p> <p>Know that a linkage is a system of levers that are connected by pivots</p> <p>Know that linkages use levers and pivots to create motion</p> <p>Know what a design criteria is</p>	<p>Identify mechanisms in everyday objects</p> <p>Make linkages by connecting levers and pivots</p> <p>Experiment making linkages by varying materials and measurements of the levers</p> <p>Create a design meeting the design criteria</p> <p>Use mechanisms to make the features in my moving object</p> <p>Create a moving object using the design criteria</p> <p>Evaluate my design of a moving object</p>	<p>Mechanical Output Input Pivot Lever Linkage Axle Wheel Design criteria</p>
	<p>Knowledge Children will know:</p>	<p>Children will know how to:</p>	<p>Vocab</p>
<p>Y3 Advent DT - Food - Eating seasonally</p> <p>NC: Learn about seasonality and how the climate a food is grown in can alter the</p>	<p>Know how climate affects food growth</p> <p>Know safety rules when using cooking equipment and handling food</p> <p>Know that imported foods travel from far away and this can negatively impact the environment</p> <p>Know that vegetables and fruit</p>	<p>Create a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell, and appearance of the dish</p> <p>Prepare themselves and a workspace to cook safely in, learning the basic rules to avoid food contamination</p> <p>Follow the instructions within a recipe</p>	<p>hygiene, preparation, safe, climate, seasonal, environment, diet, natural, processed, reared, imported, texture, seasonal, taste, smell, nutritious, contamination,</p>



<p>way it tastes and make a crumble and tart using seasonal ingredients.</p>	<p>grow in certain seasons Know that each fruit and vegetable give us nutritional benefits Know some fruits and vegetables that are grown in the UK in the UK climate Know where our food comes from</p>	<p>Establish and use design criteria to help test and review dishes Describe the benefits of seasonal fruits and vegetables and the impact on the environment Suggest points for improvement when making a seasonal tart Use cooking equipment safely and hygienically Chop fruit and vegetables using a knife</p>	<p>instructions, hygienically, chop, workspace, evaluate, improvement, design criteria</p>
<p>Y3 Lent DT - Digital world - electronic charm NC: Design, develop a program, house and promote a micro: bit electronic charm to use in low light conditions</p>	<p>Know key product developments that have occurred as a result of the digital revolution Know that in programming a 'loop' is code that repeats something again and again until stopped. Know that a Micro:bit is a pocket-sized, codeable computer. Know that writing a program to control (button press) and/or monitor (sense light) will initiate a flashing LED algorithm. Know what a pouch is and its key features Know what functional means</p>	<p>Problem solve by suggesting potential features on a Micro: bit and justifying my ideas Develop design ideas for a technology pouch Draw and manipulate 2D shapes, using computer-aided design, to produce a point of sale badge Use a template when cutting and assembling the pouch Follow a list of design requirements Select and use the appropriate tools and equipment for cutting, joining, shaping and decorating a foam pouch Apply functional features such as using foam to create soft buttons Analyse and evaluating an existing product Identify the key features of a pouch</p>	<p>Smart wearables, product design, digital revolution, technology, analogue, digital, feature, function, digital world, Micro:bit, electronic products, program, loops, initiate, simulator, control, monitor, sense, template, develop, fasten, test, user, CAD (computer aided design), point of sale, display, badge, stand, net, product, design requirements, layers</p>
<p>Y3 Pentecost DT - Structures - Constructing a castle</p>	<p>Know the importance of strength and stiffness in structures</p>	<p>Design a castle with key features to appeal to a specific person/purpose Draw and label a castle</p>	<p>Castle, turret, moat, flag, tower, gatehouse, drawbridge,</p>



<p>NC: Learn more advanced construction techniques and plan for complex arrangements of structures with continual emphasis on evaluating throughout</p>	<p>Know the features and their purpose of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge, and gatehouse Know suitable materials to be selected and used for a castle, considering weight, compression, tension Know that wide and flat based objects are more stable Know what strut, tie, span, beam mean Know difference between a frame and shell structure Know that Windsor castle is the largest castle in England</p>	<p>design using 2D shapes, labelling: -the 3D shapes that will create the features - materials need and colours Design and/or decorate a castle tower on CAD software Construct a range of 3D geometric shapes using nets Create special features for individual designs Make facades from a range of recycled materials Evaluate own work and the work of others based on the aesthetic of the finished product and in comparison to the original design Suggest points for modification of the individual designs</p>	<p>battlements, curtain walls, 3d, 2d, shape, net, tab, scoring, stable, structure</p>
	<p>Knowledge</p>	<p>Skills</p>	<p>Vocab</p>
<p>Y4 Advent DT - Structure - Pavilions NC: Be introduced to pavilion architecture, pupils experiment with frame structures before designing their own landscape and pavilion using a wider range of materials and</p>	<p>Know that pavilions are a decorative buildings or structures for leisure activities Know what a frame structure is Know that there are different ways to assemble a frame structure Know that a free-standing structure is one that can stand on its own Know that cladding can be applied to structures for different effects Know that aesthetics are how a product looks Know that a products function means its purpose Know that architects consider light, shadow and patterns when designing</p>	<p>Design a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect Build frame structures designed to support weight Create a range of different shaped frame structures Make a variety of free-standing frame structures of different shapes and sizes Select appropriate materials to build a strong structure and for the cladding Reinforce corners to strengthen a structure Create a design in accordance with a plan Create different textural effects with materials Evaluate structures</p>	<p>Design criteria, natural, structure, innovative, 3d shapes, reinforce, cladding</p>



<p>construction techniques.</p>		<p>Describe what characteristics of a design and construction make it most effective Consider effective and ineffective designs</p>	
<p>Y4 Lent DT- Mechanical systems - Making a slingshot car</p> <p>NC: Use kinetic energy to power slingshot cars, designing and making their own and testing their effectiveness</p>	<p>Know that products change and evolve over time Know that all moving things have kinetic energy Know that kinetic energy is the energy that something (object person) has by being in motion Know that air resistance is the level of drag on an object as it is forced through the air. Know and understand that the shape of a moving object will affect how it moves due to air resistance</p>	<p>Design a shape that reduces air resistance Draw a net to create a structure from Choose shapes that increase or decrease speed as a result of air resistance Personalise a Design Measure, mark, cut and assemble with increasing accuracy Make a model based on a chosen design Create different textural effects with materials Evaluate the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance</p>	<p>Chassis, energy, kinetic, mechanism, air resistance, design, structure, graphics, research, model, template</p>
<p>Y4 Pentecost DT - Electrical systems - Torches</p> <p>NC: Be introduced to electricity and electrical safety before making a simple circuit to create a functioning torch.</p>	<p>Know what electricity is Know some everyday items that use electricity Know that a battery contains stored electricity and can be used to power products Know that a conductor is a material that lets electricity travel through it Know that an insulator is a material that electricity cannot pass through</p>	<p>Identify electrical products Create a simple series circuit with a switch Identify the features of a torch Understand how a torch works Analyse and evaluate different torches Understand what is important in torch design Know how to design a torch to fit needs of user Know how to evaluate my torch design</p>	<p>Battery Series Circuit Conductor Insulator Switch Electricity Torch Housing Reflector Target audience Design criteria Design</p>



	<p>Know what a simple series circuit with a switch is and how to make it</p> <p>Know what a torch is and its features</p> <p>Know what a target audience is</p> <p>Know how to build a circuit and housing for my torch design</p>		
	Knowledge	Skills	Vocab
<p>Y5 Advent</p> <p>DT - Electrical systems - Electronic greetings cards</p> <p>NC: Explore electrical circuits and apply this knowledge to design and make their own electric greetings card</p>	<p>Know the key components used to create a functioning circuit</p> <p>Know that copper is a conductor and can be used as part of a circuit</p> <p>Know that breaks in a circuit will stop it from working</p> <p>Know how a series circuit will work in my card</p> <p>Know the negative and positive leg of an LED</p> <p>Know the symbols used in a circuit diagram</p> <p>Know who Sir Rowland Hill was and what he invented.</p>	<p>Design an electronic greetings card with a copper track circuit and components</p> <p>Create a labelled circuit diagram showing positive and negative parts in relation to the LED and the battery</p> <p>Write a design criteria for an electronic greeting card</p> <p>Compile a mood board relevant to my chosen theme, purpose, and recipient</p> <p>Make a functional series circuit</p> <p>Create an electronics greeting card, referring to a design criteria</p> <p>Map out where different components of the circuit will go</p> <p>Evaluate a peer's product against design criteria and suggesting modifications that could be made to improve the reliability or aesthetics of it or to incorporate another type of circuit component</p> <p>Analyse and evaluate a range of</p>	<p>Greeting card, purpose, seasonal, commemorative, sentimental, personalised, development, commercial, Sir Rowland Hill, invention, Penny Black stamp, bespoke, mass production, design brief, design criteria, circuit, components, series circuit, LED, battery, Negative, positive, LED, copper, conductor, Mood board, theme, recipient, series circuit, evaluate,</p>



		existing greeting cards.	improve, reliability, aesthetics, modifications
<p>Y5 Lent</p> <p>DT - Mechanical systems - Making a pop-up book</p> <p>NC: Utilise a range of mechanisms and construction techniques to create a pop up story book for younger children</p>	<p>Know that an input is the motion used to start a mechanism</p> <p>Know that an output is the motion that happens as a result of starting the input</p> <p>Knowing that mechanisms control movement</p> <p>Know mechanisms that can be used to change one kind of motion into another</p> <p>Know how to use sliders, pivots and folds to create paper-based mechanisms</p> <p>Know that a design brief is a description of what I am going to design and make.</p>	<p>Design a pop-up book which uses a mixture of structures and mechanisms</p> <p>Name each mechanism, input and output accurately</p> <p>Storyboard ideas for a book</p> <p>Follow a design brief to make a pop up book, neatly and with focus on accuracy</p> <p>Make mechanisms and/or structures using sliders, pivots and folds to produce movement</p> <p>Use layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result</p> <p>Evaluate the work of others and receiving feedback on own work</p> <p>Suggest points for improvement</p>	<p>Design, input, motion, mechanism, criteria, research, reinforce, model</p>
<p>Y5 Pentecost</p> <p>DT - Food - What could be healthier</p> <p>NC: Adapt a Bolognese recipe by adding or altering ingredients and learning and the ethical and hygienic issues of good</p>	<p>Know where food comes from - learning that beef is from cattle and how beef is reared and processed</p> <p>Know what constitutes a balanced diet</p> <p>Know how to adapt a recipe to make it healthier</p> <p>Know how to use a nutritional calculator to see how healthy a food option is</p> <p>Know that a balanced diet consists of measured amounts of different foods to keep us healthy.</p> <p>Know the different food groups are dairy, fruits and vegetables, protein, carbohydrates, fats and sugars.</p>	<p>Adapt a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients</p> <p>Write an amended method for a recipe to incorporate the relevant changes to ingredients</p> <p>Design appealing packaging to reflect a recipe</p> <p>Cut and prepare recipes safely</p> <p>Use equipment safely, including knives, hot pans and hobs</p> <p>Avoid cross-contamination</p> <p>Follow a step by step method carefully to make a recipe</p> <p>Identify the nutritional differences between different products and recipes</p>	<p>Beef, reared, processed, ethical, diet, ingredients, supermarket, farm, balanced</p>



	<p>Know that eating the right mix of nutrients will help your body grow and develop, many foods have labels which tell you the amount of each nutrient it has.</p> <p>Know that cross contamination means that bacteria and germs have been passed onto ready-to-eat-foods and it happens when these foods mix with raw meat or unclean objects.</p> <p>Know that it is important to know how to avoid cross-contamination to keep safe when preparing and cooking different foods.</p> <p>Know that in farming, it is important that the animals are cared for properly during their lifetime. There are ethical rules which ensure that the animals receive a good level of welfare.</p>	<p>Identify and describe healthy benefits of food groups</p>	
	Knowledge	Skills	Vocab
<p>Y6 Advent DT - Textiles - Waistcoats</p> <p>NC: Learn how to measure, cut and assemble fabric to create a waistcoat. They will draw a design in accordance</p>	<p>Know what a waistcoat is</p> <p>Know that King Charles I was the first person to have a waistcoat designed for them in 1630</p> <p>Know what the length and width are</p> <p>Know how to accurately mark fabric</p> <p>Know what a running stitch is</p> <p>Know how to secure the thread in place</p> <p>Know different decorative stitches</p> <p>Know what a fastening is</p> <p>Know the importance of consistently sized stitches</p>	<p>Design a waistcoat in accordance with specification linked to set of design criteria to fit a specific theme</p> <p>Annotate designs</p> <p>Use a template when pinning panels onto fabric</p> <p>Mark and cut fabrics accurately, in accordance with a design</p> <p>Sew a strong running stitch, making small, neat stitches and following the edge</p> <p>Tie strong knots</p> <p>Sew accurately with regularity of stitches</p>	<p>Annotate, decorate, design criteria, fabric, target customer, waistcoat, waterproof</p>



<p>with their own design criteria</p>		<p>Decorate a waistcoat -attaching objects using thread and adding a secure fastening Evaluate work continually as it is created</p>	
<p>Y6 Lent DT - Structure - playgrounds NC: Have the opportunity to be creative and experiment with a wide range of materials and equipment, applying prior knowledge of net and frame structures as well as bracing and cladding to design and make a playground</p>	<p>Know that structures can be strengthened by manipulating materials and shapes Know what the shell structures are in everyday life (cars, aeroplanes, tins, cans) Know the difference between man-made and natural structures Know that there are many types of apparatus in a playground such. Slide. Swing, monkey bars, tree house, tunnel Know that a prototype is a cheap model to test a design idea Know that in the real world, design can impact users in a positive and negative ways</p>	<p>Design a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, Consider effective and ineffective designs Build a range of play apparatus structures drawing upon new and prior knowledge of structures Measure, mark and cut wood to create a range of structures Use a range of materials to reinforce and add decoration to structures Improve a design plan based on peer evaluation Test and adapt a design to improve it as it is developed Identify what makes a successful structure</p>	<p>Apparatus, design criteria, equipment, playground, landscape features, cladding</p>
<p>Y6 Pentecost DT - Digital world - Navigating the world NC: Design and programme a navigation tool to produce a</p>	<p>Know that a design brief is an important document that outlines your design project so the client understands exactly what to expect will be delivered and the timescales Know that a client is a person or company who have requested a service or job from someone to complete a specialist task</p>	<p>Develop a concept and design criteria to fulfil the needs of a client Explain the key functions in the program used to fit the design criteria Consider appropriate materials and their function</p>	<p>Design brief Design criteria Concept Pitch Function Functional Feature Client</p>



<p>multifunctional device for trekkers using CAD 3D modelling software. Pitch And explain the product to a guest panel.</p>	<p>Know that the features of design criteria are the specific goals that a project must achieve to be successful</p> <p>Know what a 3D CAD model is</p> <p>Know that a pitch is a presentation that attempts to persuade</p>	<p>Develop a 3D CAD model</p> <p>Develop a presentation to explain the key functions of their design, material choices through a functional program</p> <p>Evaluate my design</p>	<p>Convince 3D CAD Model Program</p>
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